

In the
United States Court of Appeals
for the Federal Circuit

Plaintiff-Appellant,

APPLE INC., a California corporation,

Defendant-Appellee.

**BRIEF OF PLAINTIFF-APPELLANT
NETAIRUS TECHNOLOGIES, LLC**

Dated: June 6, 2014

CERTIFICATE OF INTEREST

Counsel for NetAirus Technologies, LLC certifies the following:

1. The full name of every party or amicus represented by me is:
NetAirus Technologies, LLC.
2. The name of the real part in interest (if the party named in the caption is not the real party in interest) represented by me is: None.
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:
None.
4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this Court are:

Raymond P. Niro
Dean D. Niro
Robert A. Conley
Joseph A. Culig
Tahiti Arsulowicz
NIRO, HALLER & NIRO
181 West Madison Street, Suite 4600
Chicago, IL 60602

Mark D. Roth
ORUM AND ROTH LLC
53 West Jackson Blvd., Suite 620
Chicago, IL 60604

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	iii
TABLE OF AUTHORITIES	v
STATEMENT OF RELATED CASES	1
STATEMENT OF JURISDICTION.....	1
STATEMENT OF THE ISSUES.....	2
STATEMENT OF THE CASE.....	2
SUMMARY OF THE ARGUMENT	14
ARGUMENT	16
I. STANDARD OF REVIEW	16
II. THE INCOMPLETE AND IMPROPER "WRITTEN DESCRIPTION" JURY INSTRUCTIONS WARRANT A NEW TRIAL.....	17
A. The Trial Court Erred In Refusing To Instruct The Jury In Accordance With NetAirus' Proposed Written Description Instruction	18
B. The Trial Court Erroneously Instructed The Jury To Ignore The Original Claims In Making A Written Description Determination.....	21
C. Evidence Regarding The Original Claims Was Developed During Trial.....	25
III. AS A MATTER OF LAW, THERE WAS NOT SUBSTANTIAL EVIDENCE TO SUPPORT THE FINDING OF LACK OF WRITTEN DESCRIPTION	27
A. Rodriguez's Opinion As To "Written Description" Was Not Based Upon The Proper Legal Standard	28
B. Rodriguez's Conclusory Testimony Does Not Constitute Clear And Convincing Evidence.....	29
IV. AS A MATTER OF LAW, THE TRIAL COURT COMMITTED LEGAL ERROR ON THE ISSUE OF OBVIOUSNESS.....	31
A. The Finding That The Prior Art Combinations Taught The "Selectively" Element Of The Claims Is Erroneous.....	33

B. The Finding That Apple Presented Substantial Evidence Of A Motivation To Combine The Prior Art References Is Erroneous	38
V. THE TRIAL COURT COMMITTED LEGAL ERROR ON THE ISSUE OF DIRECT INFRINGEMENT	42
A. The Undisputed Evidence Presented At Trial Demonstrated That Apple Directly Infringed In At Least Some Instances	43
B. The Trial Court Erred In Denying NetAirus' Renewed Motion For Judgment As A Matter Of Law	53
VI. NETAIRUS IS ENTITLED TO A NEW TRIAL ON THE ISSUE OF DIRECT INFRINGEMENT	55
A. The Jury's Verdict Was Contrary To The Clear Weight Of The Evidence.....	56
B. The Court Failed To Properly Instruct The Jury.....	57
CONCLUSION	62
PROOF OF SERVICE.....	63
CERTIFICATE OF COMPLIANCE.....	64
ADDENDUM	

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	38, 41
<i>Alcon Research Ltd. v. Barr Labs., Inc.</i> , 745 F.3d 1180 (Fed. Cir. 2014)	28, 29, 30, 31
<i>Ariad Pharms., Inc. v. Eli Lilly & Co.</i> , 598 F.3d 1336 (Fed. Cir. 2010)	19, 23, 24
<i>Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.</i> , 796 F.2d 443 (Fed. Cir. 1986)	35
<i>Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.</i> , 55 F.3d 615 (Fed. Cir. 1995)	53, 59, 60
<i>Commil USA, LLC v. Cisco Sys., Inc.</i> , 720 F.3d 1361 (Fed. Cir. 2013)	16, 18, 62
<i>Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.</i> , 635 F.3d 1373 (Fed. Cir. 2011)	21, 23
<i>CytoLogix Corp. v. Ventana Med. Sys., Inc.</i> , 424 F.3d 1168 (Fed. Cir. 2005)	31
<i>Don Burton, Inc. v. Aetna Life & Cas. Co.</i> , 575 F.2d 702 (9th Cir. 1978)	61
<i>Dynetix Design Solutions Inc. v. Synopsys Inc.</i> , 2013 WL 2053890 (N.D. Cal. May 14, 2013)	53, 60
<i>Gantt v. City of Los Angeles</i> , 717 F.3d 702 (9th Cir. 2013)	16
<i>Harper v. City of Los Angeles</i> , 533 F.3d 1010 (9th Cir. 2008)	16

<i>Honeywell Int'l, Inc. v. United States</i> , 609 F.3d 1292 (Fed. Cir. 2010)	33
<i>Hyatt v. Boone</i> , 146 F.3d 1348 (Fed. Cir. 1998)	23
<i>Hynix Semiconductor Inc. v. Rambus Inc.</i> , 645 F.3d 1336 (Fed. Cir. 2011)	27
<i>Integra Lifesciences I, Ltd. v. Merck KGaA</i> , 496 F.3d 1334 (Fed. Cir. 2007)	29
<i>Integrated Tech. Corp. v. Rudolph Techs., Inc.</i> , 734 F.3d 1352 (Fed. Cir. 2013)	16
<i>InTouch Techs., Inc. v. VGO Commc'ns, Inc.</i> , ___ F.3d ___, 2014 WL 1855416 (Fed. Cir. May 9, 2014).....	<i>passim</i>
<i>K/S Himpp v. Hear-Wear Techs., LLC</i> , ___ F.3d ___, 2014 WL 2179275 (Fed. Cir. May 27, 2014).....	41
<i>Kao Corp. v. Unilever U.S., Inc.</i> , 441 F.3d 963 (Fed. Cir. 2006)	24
<i>Koito Mfg. Co. v. Turn-Key-Tech, LLC</i> , 381 F.3d 1142 (Fed. Cir. 2004)	28, 31, 36
<i>KRS Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	32
<i>Landes Constr. Co. v. Royal Bank of Canada</i> , 833 F.2d 1365 (9th Cir. 1987)	56
<i>Liebel-Flarsheim Co. v. Medrad, Inc.</i> , 358 F.3d 898 (Fed. Cir. 2004)	20
<i>Lucent Techs., Inc. v. Gateway, Inc.</i> , 580 F.3d 1301 (Fed. Cir. 2009)	48
<i>Molski v. M.J. Cable, Inc.</i> , 481 F.3d 724 (9th Cir. 2007)	17

<i>In re Mott</i> , 539 F.2d 1291 (CCPA 1976)	24
<i>N. Telecom, Inc. v. Data-point Corp.</i> , 908 F.2d 931 (Fed. Cir. 1990)	23
<i>NTP, Inc. v. Research In Motion, Ltd.</i> , 418 F.3d 1282 (Fed. Cir. 2005)	48, 54
<i>Philips Elecs. N. Am. Corp. v. Contec Corp.</i> , 411 F. Supp. 2d 470 (D. Del. 2006).....	53, 60
<i>Power-One, Inc. v. Artesyn Techs., Inc.</i> , 599 F.3d 1343 (Fed. Cir. 2010)	32
<i>Presidio Components, Inc. v. Am. Tech. Ceramics Corp.</i> , 702 F.3d 1351 (Fed. Cir. 2012)	17
<i>Procter & Gamble Co. v. Teva Pharms. USA, Inc.</i> , 566 F.3d 989 (Fed. Cir. 2009)	32
<i>Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.</i> , 563 F.3d 1358 (Fed. Cir. 2009)	16
<i>Toshiba Corp. v. Imation Corp.</i> , 681 F.3d 1358 (Fed. Cir. 2012)	48
<i>Unigene Labs., Inc. v. Apotex, Inc.</i> , 655 F.3d 1352 (Fed. Cir. 2011)	38
<i>United States v. Mundi</i> , 892 F.2d 817 (9th Cir. 1989)	21
<i>Vas-Cath Inc. v. Mahurkar</i> , 935 F.2d 1555 (Fed. Cir. 1991)	21
<i>Whitserve, LLC v. Computer Packages, Inc.</i> , 694 F.3d 10 (Fed. Cir. 2012)	33

Statutes

28 U.S.C. § 1291	2
28 U.S.C. § 1295	2
28 U.S.C. § 1331	1
28 U.S.C. § 1338	1
35 U.S.C. § 112	10, 11, 13
35 U.S.C. § 271	1
35 U.S.C. § 282	27

Other Authorities

Fed.R.Civ.P. 50(b)	<i>passim</i>
Fed.R.Civ.P. 59	1, 4, 56, 57

STATEMENT OF RELATED CASES

Pursuant to Federal Circuit Rule 47.5, NetAirus Technologies, LLC ("NetAirus") states that:

1. No appeal in this case has ever been heard before this Court;
2. The following case, which is presently stayed, will be directly affected by this Court's decision in the pending appeal: *NetAirus Technologies, LLC v. Apple, Inc.*, Case No. 2:13cv03780-JAK-E, pending in the United States District Court for the Central District of California, J. Kronstadt presiding.

STATEMENT OF JURISDICTION

NetAirus asserted a claim against Apple, Inc. ("Apple") for infringement of U.S. Patent No. 7,103,380 ("the '380 patent") under 35 U.S.C. § 271. (A07803 – A07829). The trial court had subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

Following a jury trial, the trial court entered final judgment on January 2, 2014. (A00001 – A00002). NetAirus timely moved for a new trial under Fed.R.Civ.P. 59 and, on a renewed basis, for judgment as a matter of law under Fed.R.Civ.P. 50(b). (A13336 – A13339; A13999 – A14002). On March 7, 2014, the trial court entered an order denying the post-trial motions. (A00008 – A00031).

NetAirus filed a timely Notice of Appeal on April 2, 2014. (A14655 – A14658). This Court has jurisdiction under 28 U.S.C. §§ 1291 and 1295(a)(1).

STATEMENT OF THE ISSUES

1. Whether the judgment that claims 3, 7, 9, 10, 11 and 12 of the '380 patent are invalid due to the lack of written description should be reversed.

2. Whether the judgment that claims 3, 7, 9, 10, 11 and 12 of the '380 patent are invalid due to obviousness should be reversed.

3. Whether the judgment that claims 3, 7, 9, 10, 11 and 12 of the '380 patent are not directly infringed should be reversed.

4. Whether the judgment should be vacated and the case remanded for a new trial based on: (1) the incomplete and improper instructions regarding the lack of written description; (2) the failure to instruct the jury regarding part-time infringement; and (3) the clear weight of evidence supporting infringement.

STATEMENT OF THE CASE

This appeal is being taken from a final judgment entered in Apple's favor following a trial that resulted in a split jury verdict (A00001 – A00002), as well as the trial court's denial of NetAirus' post-trial motions relating to that final judgment. (A00008 – A00031).

This case began on April 30, 2010 when NetAirus filed its complaint against Apple asserting infringement of the '380 patent. (A07803 – A07829). Roughly

sixteen months after the case began, Apple asked the United States Patent and Trademark Office ("USPTO") to reexamine the '380 patent. (A06513 – A06514). The request was granted (A06749 – A06751), and the litigation was stayed at Apple's request. (A08822 – A08823; A08991 – A08992).

On October 8, 2012, the USPTO, following its consideration of the submitted prior art, issued a reexamination certificate for the '380 patent. (A00243 – A00244). As a result of the reexamination, originally issued claim 1 of the '380 patent was cancelled, while the patentability of originally issued claim 2 was confirmed; claims 3-13 were determined to be patentable as amended. (A00244). The previously-ordered stay was lifted, and the case resumed.

The trial of this case commenced before a jury on November 12, 2013 (A00245; A00391), and the case was submitted to the jury for decision 8 days later. (A01383; A01487 – A01488). At trial, NetAirus showed that Apple directly infringed the asserted claims of the '380 patent (claims 3, 7 and 9-12) through its own use of its iPhone 4 product. Apple, in turn, asserted three defenses: (1) that the asserted claims were not directly infringed by Apple; (2) that the asserted claims were invalid due to obviousness; and (3) that the asserted claims were invalid for lack of a supporting written description in the specification.

The jury deliberated for four days, and, during that process, submitted ten questions to the trial court. (A13303 – A13335). Several of the questions

indicated that the jury was confused about the application of the instructions with which it had been charged (A13323; A13327), while other notes indicated that the jury was unable to reach a unanimous verdict as to any issue in the case, and therefore was deadlocked. (A13325; A13326; A13332). The parties waived their respective rights to have a mistrial declared, and instead elected to accept a majority verdict. (A01576 – A01580; A13333).

After reporting that it was still unable to reach a majority verdict as to one issue in the case (A13334), approximately twenty minutes later the jury changed course and confirmed that it had reached a majority verdict on all issues. (A13335). The jury returned verdicts in favor of Apple, finding that the asserted claims of the '380 patent: (1) had not been directly infringed by Apple; (2) had not been indirectly infringed by Apple; (3) were invalid for obviousness; and (4) were invalid for lack of written description. (A01587 – A01589). When initially polled, there was confusion among the jurors as to their respective votes. (A01589 – A01592). The tallied votes were eventually recorded as 5-3 on the issue of direct infringement, 5-3 on the issue of obviousness, 6-2 on the issue of written description, and 7-1 on the issue of indirect infringement – all in favor of Apple. (A01598 – A01599).

A final judgment order was entered consistent with the jury's findings. (A00001 – A00002). NetAirus timely moved for a new trial under Fed.R.Civ.P. 59

and, on a renewed basis, for judgment as a matter of law under Fed.R.Civ.P. 50(b). (A13336 – A13339; A13999 – A14002). The trial court denied both motions (A00008 – A00031), which resulted in this appeal.

STATEMENT OF THE FACTS

Richard Ditzik and His U.S. Patent No. 7,103,380

This case is about U.S. Patent No. 7,103,380, covering a "Wireless Handset Communications System." (A00226). Richard Ditzik is the inventor. (A00486). He received a Bachelor's of Science in Electrical Engineering from the University of Michigan (A00486) and a Masters Degree in Cybernetic Systems from California State University, San Jose. (A00487). He worked as an engineer at General Dynamics and Lockheed designing electronics for missile systems (A00488), and later as an engineer at Panasonic designing high definition televisions. (A00489).

Mr. Ditzik has been awarded eighteen United States patents in areas such as panel displays, speech recognition, touch screens and cell phone systems. (A00493 – A00494). Some of his patents have been licensed to companies such as Samsung, Sharp, Dell, Hewlett-Packard and ViewSonic, among others. (A00578 – A00579). Mr. Ditzik founded NetAirus Technologies, LLC to help commercialize his inventive efforts. (A00490).

In the late 1980's, Mr. Ditzik learned how to prepare and prosecute his own patent applications from a local inventors forum. (A00495 – A00497). He not only prosecuted the application that matured into the '380 patent without the assistance of legal counsel, but he prepared the drawings, specification and claims as well. (A000495 – A00496).

The application for the '380 patent was based upon his conception of the unique idea that a cellular handset could select between two different communication paths – a local area network and a wide area network:

Q. How did you come up with this idea for this invention in the '380 patent?

A. Well, I was thinking about communication schemes on the system as a whole -- base stations, handsets, notebook computers, PDAs -- and how they could communicate wirelessly, and I just was hit by this idea, counter-intuitive idea, that you could use duplicate paths, one to the cellular and one to the local area base station, and that would be a great advantage and provide many advantages.

(A00543 – A00544). The claims of the '380 patent define a method of handset communication whereby the handset may selectively send data via one of two communication channels: (1) a local area network in which the data is communicated from the handset to a local area communication base unit a relatively short distance from the handset; and (2) the direct communication of data to an external wide area network. (A00242). The claims of the '380 patent are further directed to situations in which the transmit power level of the handset,

when communicating with the local area network, is lower than when communicating with the external wide area network. (A00242; A00226). Issued claims 1, 2 and 3 of the '380 patent, as existed before reexamination, are set forth below:

1. A method for handset unit communication comprising the following steps in any order:

a) transmitting first data via wireless communication to a local area communication base unit a relatively short distance away;

b) receiving second data via wireless communication from the local area communication base unit a relatively short distance away;

c) using said handset unit to communicate, selectively, the first and second data to and from the local area communication base unit and to communicate third and fourth data to and from an external wide area network, wherein the communication of the first, second, third and fourth data are not necessarily performed simultaneously, and wherein the transmit power level of the handset unit when transmitting to the local area communication base unit is lower than when transmitting to the external wide area network; and

d) wherein the first and second data include data formatted for computer e-mail.

2. The method for handset unit communication as recited in claim 1, wherein said handset unit is configured to a personal digital assistant (PDA) having PDA functions in addition to handset unit communication functions.

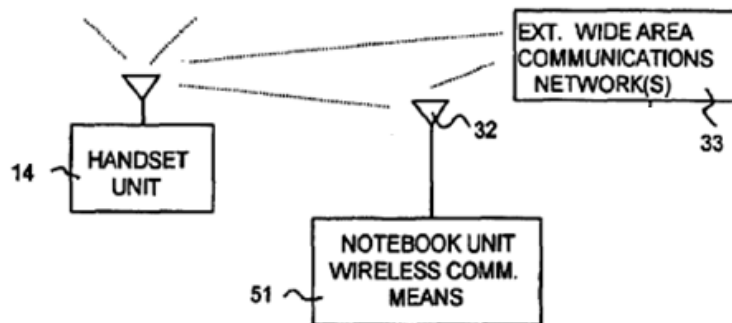
3. The method for handset unit communication recited in claim 1, wherein said handset unit is a cellular telephone unit.

(A00242).

Features of these method claims are described throughout the specification of the '380 patent. By way of example, the specification provides support for a handset unit that could selectively communicate with both a local base unit and an external wide area communications network:

If one is using the handset or earset, the base computer unit 100 may be placed some distance away from the user, typically in the same room or nearby room. ... Thus, the base unit 100 may relay RF communications between the handset or earset and an external wide area communications network.

(A00239 at col. 8, ll. 36-48). The two communication pathways over which the handset may transmit and receive data are shown in Figure 7 of the '380 patent, the relevant portion of which is reproduced below:



(A00234, Fig. 7). The specification of the '380 patent also discloses that the communication system, which includes the handset, is capable of performing PDA functions and e-mail functions. Again, by way of example, the specification says:

Other capabilities such as FAX send/receive, speech recognition, voice processing voice mail, telephony, and *E-mail functions* may be implemented in the computer system.

(A00238 at col. 6, ll. 49-52, emphasis added). The specification further states:

Many types of computer application programs may be executed by the computer system. For example, one or more telephony programs 84, office/personal productivity programs 86, *electronic mail* or voice mail 88, and Internet/Web browsing programs 90 may be used. Other *PDA*, PC or workstation programs may also be executed.

(A00242 at col. 13, ll. 23-28; emphasis added). The specification also refers to the term "PDA" or "personal digital assistant" on nearly two dozen occasions.

(A00226 – A00242, A00531 – A00533; see also disclosure documents referenced in the '380 patent (A00236; A03505 – A03510)).

The Original Prosecution History of the '380 Patent

Mr. Ditzik filed a divisional application that matured into the '380 patent on September 8, 1999, claiming priority to an earlier pending application filed on April 4, 1997. (A000226). The original claims of the April 4, 1997 parent application contained support for many of the features that would ultimately be set forth in the issued claims of the '380 patent. Original claims 5 and 7 disclosed a portable wireless communication system that included a handset for selectively communicating with both a local base unit and an external wide area network:

5. A portable wireless communication system including a microcomputer system to be operated by a user for voice and ***data communications to and from external wide area communications networks***, the wireless communications systems comprising of:

b. means for *handset communications* adapted to communicate with the base unit wireless communication means, via electromagnetic

radiation means, *wherein electrical power of the handset unit is substantially less than the power the base unit means*;

c. the said base unit performing a communications in a bi-directional manner, *relaying data between the handset means and the wide area network*, wherein the lower power handset is normally placed next to the user's ear during voice communications, but the user has the option to place the higher power base unit several feet away from the user, such as in the same or nearby room.

7. A portable wireless communication system of Claim 5, in which the user has the *option to switch the electrical power level of the handset means to either high power levels for communications directly with the wide area communications network, or switch to lower power levels for communications to the base unit means*.

(A06041 – A06043; emphasis added). Original claim 9 covered a handset performing telephone, PDA and e-mail functions. (A06042 – A06043; referring to "telephony programs, personal productivity programs, e-mail programs....").

The prosecution of the '380 patent was comprehensive, with the USPTO issuing roughly a dozen official office actions, and with an equal number of responsive communications coming from Mr. Ditzik. Throughout that process, the patent examiners carefully scrutinized the pending patent claims for satisfaction of all of the requirements of patentability, including the requirements of 35 U.S.C. § 112, ¶ 1 (now § 112(a)). By way of example, in one instance the USPTO rejected the pending claims of the '380 patent on the basis that the claimed "handset" was not adequately supported by the written description. (A06212). Mr. Ditzik responded by pointing to support in the application:

Examiner may not notice that Fig. 7 and 8 can refer to both wireless handset and base unit.

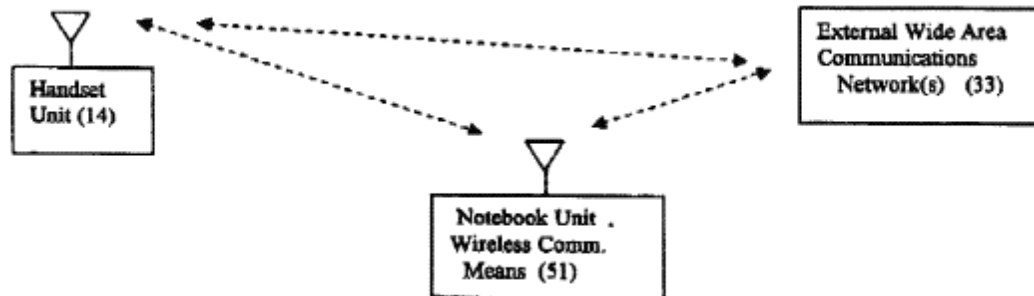
In regard to Claims 44-48, Examiner states the specification fails to provide for the claimed subject matter. However, as mentioned above, the entire text referring to Fig. 8 (8A and 8B) applies to the "wireless handset." Also, Fig. 7, as noted in the "Brief Description of the Drawings" on page 5 states that *"Fig. 7 shows block diagram of the computer system and associated elements."* Thus, Fig. 7 may apply to wireless handsets. The associated text with Fig. 7, stating on page 16, line 15, through page 18, can apply to "wireless handsets." Also, on page 18, line 17 the specification states: *"A conventional computing mode includes typical PC computing or PDA computing."* It is well known the PDAs have microprocessors. The specification teach microprocessors in the base unit, wireless handset or a PDA. The specification and drawing teach the wireless handset may be also PDA. Thus, specification teaches that the wireless handset can have PDA functions in addition to handset functions.

(A06228 – A06231). In response to the identification of supporting disclosure, the USPTO eventually indicated that the stated rejections which had been made under 35 U.S.C. § 112 ¶ 1 were overcome: ***"With the exception of the phrase 'under optional user control' the amendment to claim 54 [issued as claim 1] overcomes the 112/1 rejection."*** (A06398).

As the prosecution ran its course, there were numerous instances in which Mr. Ditzik identified supporting disclosure for the various limitations of his patent claims. For example, he explained:

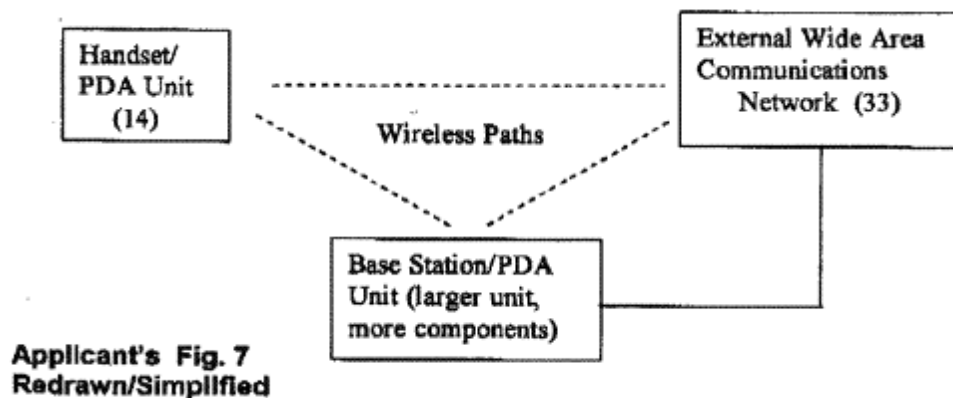
The text "LAN/WAN" means LAN [local area network] and/or WAN [wide area network], and in the specification the term "LAN" means local networking services provided from and to the handset (14). It is impossible for a LAN interface on a base station to have any direct communication function and external wide area networks. The only

purpose of LAN interface is to connect local devices (i.e., handsets). Applicant's Fig. 7 and accompanying text teaches how the above local wireless data networking works together. As shown below in the diagram, which is a part of Fig. 7, Applicants teaches "wireless data networking" (claim language), which is the roughly equivalent to local area network (LAN) as taught in the specification.



(A06403 – A06405). In another instance, Mr. Ditzik explained how the handset included a conventional PDA computer:

As shown below, Applicant's specification discloses that the handset unit (14) may include a small PDA unit; and the base unit (100) may also be a PDA unit that is larger and comprises of more components and functions, including relay functions. Shown below is a simplified form of Fig. 7. This shows Applicant's useful, novel and non-obvious communication path structure, which is not taught in the prior art.



(A06480 – A06481). The significance of Fig. 7 was clarified; it was not altered. After *the USPTO itself* amended the claims to place them into a condition that satisfied all of the requirements of patentability (including the requirements of 35 U.S.C. § 112, ¶ 1), the Examiner's stated Reasons For Allowance included the following:

[T]he prior art fails to disclose a combination of steps in a method for *handset unit* communication, including using said *handset unit* to *communicate, selectively*, the first and second data *to and from the local area communication base unit* and to communicate third and fourth data *to and from an external wide area network*, wherein the communication of the first, second, third and fourth data are not necessarily performed simultaneously, and wherein the transmit power level of the handset unit when transmitting to the local area communication base unit is lower than when transmitting to the external wide area network; and wherein the first and second data include data formatted for computer e-mail, as in claim 54; ...

(A06498 – A06499; emphasis added).

Apple's Reexamination of the '380 Patent

Apple filed a request for reexamination of the '380 patent which resulted in originally issued claim 1 of the '380 patent being cancelled, the patentability of originally issued claim 2 being confirmed, and claims 3-13 being found patentable as amended. (A00244). Claim 3 was amended to include the limitations of a handset unit "configured to a personal digital assistant (PDA) having PDA functions in addition to handset unit communication functions" (from claim 2) and further configured as a "cellular telephone unit." (A07024 – A07027). Claim 7

was similarly amended to include the same PDA limitation from claim 2. (*Id.* at A07026). Following its full consideration of the prior art references that had been submitted by Apple, the USPTO issued a reexamination certificate for the '380 patent on October 8, 2012. (A00243 – A00244).

SUMMARY OF THE ARGUMENT

The judgment should be reversed for several independent reasons. First, as a matter of law, there was not substantial evidence in the record to support the lack of written description finding. Apple alleged that the specification of the '380 patent failed to provide support for three features of the asserted claims: (1) that the claimed handset could operate "selectively"; (2) that the claimed handset could transmit data in the form of "computer e-mail"; and (3) that the claimed handset could perform "PDA" functions. Yet, Apple failed to provide any clear and convincing evidence that the inventor was not in possession of the claimed invention. In fact, the testimony of Apple's expert was conclusory and used the standard of enablement rather than the standard for lack of written description which requires the inventor to have possession of his invention.

The trial court further erred in not granting a new trial based on the erroneous instruction provided to the jury. The trial court gave an instruction that specifically instructed the jury not to examine the claims in making a determination on the issue of lack of written description.

The judgment for obviousness should also be reversed. There was no evidence that the prior art disclosed or even suggested the element that the handset communicate *selectively* with either a local area network or wide area network. Apple focused primarily on two combinations of prior art: (1) an article in the *San Francisco Chronicle* about a not-yet-sold Nokia 9000 cell phone, in combination with the European Digital Cellular Telecommunications Systems GSM standard; and (2) an article from BYTE Magazine describing an IBM Simon PDA, in combination with the European GSM standard. Neither combination discloses the limitation of the asserted claims requiring that the handset be capable of operating "selectively" between a local area network and a wide area network.

Finally, the judgment for non-infringement should be reversed. Apple limited its non-infringement defense to a single limitation of the asserted claims which requires that the transmit power level of the handset when communicating with the local area network is lower than when communicating with the external wide area network. The evidence presented at trial clearly demonstrated that, in at least some instances, this claim limitation was satisfied with respect to Apple's use of the iPhone 4. Pertinent to this issue is the fact that the trial court refused to instruct the jury (as requested by NetAirus) that "part-time infringement," as a matter of established law, still constitutes infringement. (A00046).

ARGUMENT

I. STANDARD OF REVIEW

Applying regional circuit law (here the Ninth Circuit), this Court reviews the denial of a JMOL motion *de novo*. *Integrated Tech. Corp. v. Rudolph Techs., Inc.*, 734 F.3d 1352, 1356 (Fed. Cir. 2013); *Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 563 F.3d 1358, 1370 (Fed. Cir. 2009). Under Ninth Circuit law, judgment as a matter of law requires that "the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury's verdict." *Harper v. City of Los Angeles*, 533 F.3d 1010, 1021 (9th Cir. 2008) ("A jury's verdict must be upheld if it is supported by substantial evidence ..." (quoting *Pavao v. Pagay*, 307 F.3d 915, 918 (9th Cir. 2002))).

This Court reviews the legal correctness of jury instructions *de novo*. *Commil USA, LLC v. Cisco Sys., Inc.*, 720 F.3d 1361, 1365 (Fed. Cir. 2013). With respect to jury instructions, a new trial may be predicated upon the trial court's failure to adequately instruct the jury on the law, as well as the trial court's provision of legally erroneous instructions to the jury. *Gantt v. City of Los Angeles*, 717 F.3d 702, 706-07 (9th Cir. 2013). A new trial is warranted when an instruction was erroneous and "could have" changed the result. *Commil*, 720 F.3d at 1366-67.

Under Ninth Circuit law, a new trial is also warranted: (1) when a verdict is "contrary to the clear weight of the evidence;" (2) when a verdict is "based upon false or perjurious evidence;" or (3) "to prevent a miscarriage of justice." *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 729 (9th Cir. 2007). This Court reviews the denial of a new trial motion for abuse of discretion. *InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, ___ F.3d ___, 2014 WL 1855416, *8 (Fed. Cir. May 9, 2014) (applying Ninth Circuit law); *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 702 F.3d 1351, 1358 (Fed. Cir. 2012) (same).

II. THE INCOMPLETE AND IMPROPER "WRITTEN DESCRIPTION" JURY INSTRUCTIONS WARRANT A NEW TRIAL

The jury was clearly confused about the issue of written description, as can be seen from the questions asked during deliberations:

(No. 2) Does the term "***written description***," asked in Question 6 of the Jury Verdict, refer to the words within the section termed "Detailed Description" on pg. 1306-00012 of Patent '380, OR to the words within the claims of the same patent?

(A13323).

(No. 5) In reference to the attached, highlighted section of the Jury Instructions, do we base our decision on Questions 1-3 of the Jury Verdict Form on the claims and nothing else? In other words, do we exclude the ***written description***?

(A13327). The trial court's instructions on the issue of written description not only created confusion with the jury, but eventually misled the jury as well. Because

the court's legally erroneous instructions "could have" changed the result that was reached by the jury, a new trial is warranted. *See Commil*, 720 F.3d at 1366-67.

A. The Trial Court Erred In Refusing To Instruct The Jury In Accordance With NetAirus' Proposed Written Description Instruction

NetAirus proposed a "written description" jury instruction based on Model Patent Jury Instruction B.4.2a from the Federal Circuit Bar Association. (A11897 – A11898). The trial court rejected NetAirus' proposal, instead adopting an instruction that Apple had derived from the Northern District of California's model instruction. (A11899 – A11900; A00101). Thus, at trial, the jury was instructed:

In addition, the patent claim is invalid if the patent does not contain an adequate written description of the claimed invention. The purpose of this written description requirement is to demonstrate that the inventor was in possession of the invention at the time the application for the patent was filed even though the claims may have been changed or new claims added since that time.

The written description requirement is satisfied if a person of ordinary skill in the field reading the original patent application at the time it was filed would have recognized that the patent application described the invention as claimed even though the description may not use the exact words found in the claim.

A requirement in the claim need not be specifically disclosed in the patent application as originally filed if a person of ordinary skill would understand that the missing requirement is necessarily implied in the patent application as originally filed.

(A01414 – A01415; see also A00101; A11899 – A11900). This instruction was incomplete and legally erroneous, and NetAirus accordingly objected to its use. (A12875; A13130).

The trial court's refusal to give NetAirus' proposed jury instruction was pivotal to the proceedings. By refusing to instruct the jury as NetAirus proposed, the trial court failed to adequately instruct the jury about what parts of the original application may satisfy the written description requirement:

In the patent application process, the applicant may keep the originally filed claims, or change the claims between the time the patent application is first filed and the time a patent is issued.... These changes may narrow or broaden the scope of the claims.

The written description requirement may be satisfied by any combination of the words, structures, figures, diagrams, formulas, etc., contained in the patent application.

(A11897 – A11898). The failure to instruct the jury to look at the *words, structures, figures, diagrams, formulas, etc. contained in the patent application* created prejudicial error because the finder of fact may properly look to any combination of the words of the application – including the original claims. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1349, 1352 (Fed. Cir. 2010) (*en banc*) (explaining that "many original claims will satisfy the written description requirement" and that "the description requirement does not demand any particular form of disclosure").

Apple took full advantage of the omission of these points from the trial court's instruction, making arguments suggesting that changes in claim scope during prosecution were somehow improper:

Looking at Mr. Ditzik's original claims side-by-side to his new claims, they're almost completely different. Mr. Ditzik was claiming things that he didn't disclose in his original specification. ***He was claiming things that he had read about after the fact. In our patent system, you can't do that.*** That's not fair. It's not playing fair with everybody else.

(A01465; emphasis added). Contrary to these arguments, amending patent claims during prosecution to cover the commercial products of others is perfectly proper, so long as the original application supports the broadened claims. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 n.2 (Fed. Cir. 2004) ("[I]t is not improper for an applicant to broaden his claims during prosecution in order to encompass a competitor's products, as long as the disclosure supports the broadened claims.").

The jury was also misled into thinking that the supporting written description had to be in the ***text*** of the specification:

The specification doesn't disclose the handset being a PDA. And, again, if it was in there, they would have showed [sic] it to you. ***If there was a sentence in the specification*** that said, "the handset is a PDA," they would have pointed that out. ***If there was a sentence that said***, "the handset is [sic] e-mail," they would have pointed that out too.

There's not a single sentence that says, "e-mail functions may be implemented in the handset." Now, if that was Mr. Ditzik's idea, he

would have written that in the specification. He didn't write it there because it wasn't his idea.

(A01467 – A01468; emphasis added). As a matter of law, the written text of the specification is *not* the only evidence that may show compliance with the written description requirement – figures and drawings may also suffice. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1565 (Fed. Cir. 1991). And, the original claims of a patent application may suffice as well. *Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.*, 635 F.3d 1373, 1380 (Fed. Cir. 2011).

The trial court's instruction on written description was inadequate in light of Apple's repeated mischaracterizations of the law. *See United States v. Mundi*, 892 F.2d 817, 818 (9th Cir. 1989) (the adequacy of a jury instruction is evaluated in the context of the whole trial). NetAirus' proposed instruction, had it been adopted by the trial court, would very likely have foreclosed Apple's misleading characterizations, and certainly could have changed the jury's verdict. Because the trial court's omission of NetAirus' proposed instruction resulted in prejudicial error, a new trial is warranted.

B. The Trial Court Erroneously Instructed The Jury To Ignore The Original Claims In Making A Written Description Determination

The questions raised by the jury during deliberations exemplify the jury's confusion with respect to the written description inquiry. For example, the jury

had no understanding as to what material it should consider in determining whether the written description requirement had been satisfied:

Does the term "written description" asked in Question 4 of the Jury Verdict, refer to the words within the section termed "Detailed Description" on pg. 1306-00012 of Patent '380, OR *to the words within the claims of the same patent?*

(A13323). The jury was clearly seeking guidance on whether "words within the claims" can be reviewed in making a determination with respect to written description.

The trial court responded by instructing the jury that the claims (which would necessarily include the original application claims) were not to be reviewed by the jury in conjunction with its written description determination:

The term "written description" as used in Question 4 of the Verdict Form means what is contained in the portion of the '380 Patent, (Exhibit 1306) starting on its first page (1306-00001) through and including column 13, line 46 o[n] its 17th page (1306-00017). This includes all text and figures on these pages. *It does not include the claims which begin on column 13, line 47 on page 17.*

(A13324; see also A01527). Contrary to the response which the trial court provided, NetAirus asserted that the jury should be instructed that it may consider the original application claims in conjunction with its written description determination. (A01521 – A01522; A01552; A01555). NetAirus brought this issue to the trial court's attention while the jury was still deliberating:

We just wanted to bring to the Court's attention two cases, *Hyatt vs. Boone*, 146 F.3d 1348 and *Northern Telecom vs. Datapoint*, 908 F.2d 981.

And we brought up earlier that the claims – and it's our belief that the original claims are part of the specification and should – should be included as part of the written description analysis

(A01528). NetAirus specifically requested that the trial court include a statement that the jury considers the original claims (A01528 – A01529), as the law requires:

Possession means "possession as shown in the disclosure" and "requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Original claims are part of the specification and in many cases will satisfy the written description requirement.*

Crown Packaging, 635 F.3d at 1380 (Fed. Cir. 2011) (emphasis added, internal citations omitted, *accord Hyatt v. Boone*, 146 F.3d 1348, 1352 (Fed. Cir. 1998) ("The claims as filed are part of the specification, and may provide or contribute to compliance with § 112."); *N. Telecom, Inc. v. Data-point Corp.*, 908 F.2d 931, 938 (Fed. Cir. 1990). The trial court's legally erroneous instruction, which steered the jury away from making that analysis, prejudiced NetAirus.

The trial court was incorrect in finding that an originally-filed claim can only provide written description support for claims that have "similar scope and wording" as the issued claims. (A00024). As the Federal Circuit in *Ariad* stated: "[n]either [§ 112] nor legal precedent limits the written description requirement to

cases of priority or *distinguishes between original and amended claims*." *Ariad*, 598 F.3d at 1351 (emphasis added).

Likewise, in *In re Mott*, the Court of Customs and Patent Appeals reversed the Patent Office's written description rejection of an application claim based on the disclosure of **another** claim, "which was part of the application as originally filed and is thus available as original disclosure." *In re Mott*, 539 F.2d 1291, 1299 (CCPA 1976). Thus, contrary to the trial court's understanding of the law, an originally-filed claim can provide support for **any other** issued claim, regardless of whether the issued claim was filed in the initial application or later added. In fact, this Court has cautioned that "the disclosure as originally filed does not ... have to provide in *haec verba* support for the claimed subject matter at issue." *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006 (internal alteration omitted)). It should have been left to the jury to decide the factual question of whether the original claims disclose the subject matter of the issued claims:

Furthermore, while it is true that original claims are part of the original specification, *In re Gardner*, 480 F.2d 879, 879 (CCPA 1973), that truism fails to address the question whether original claim language necessarily discloses the subject matter that it claims.

Ariad, 598 F.3d at 1349; *see also id.* at 1351 (the written description inquiry is a question of fact). By specifically instructing the jury ***not*** to consider the claims, the trial court deprived the jury of making a full and complete analysis of the

written description issue. For this reason, the trial court's instruction was legally erroneous. A new trial on the issue of written description is warranted.

C. Evidence Regarding The Original Claims Was Developed During Trial

The trial court also erred in finding that any instruction to the jury regarding the original application claims was not supported by the evidence:

The Court declined to give an additional instruction, stating that "in the course of the trial this wasn't advanced to the jury as an argument ... So at this point if we were to tell the jury as part of your task in determining the written description, you should go back to the original patent and look at this claims, they don't have the context in which to do that"

(A00026 – A00027). The trial court's reasoning is flawed. The original application claims were submitted into evidence for the jury to consider. (A06041 – A06043). Those claims disclosed a handset that "selectively" communicates with a wide area network or a local area network:

5. A portable wireless communication system including ... means for *handset communications* adapted to communicate with the base unit wireless communication means ...

7. A portable wireless communication system of Claim 5, in which the user has the *option to switch the electrical power level of the handset means to either high power levels for communications directly with the wide area communications network, or switch to lower power levels for communications to the base unit means.*

(A06041 – A06043; emphasis added). The original application claims also provide one skilled in the art with guidance as to the handset performing telephone, PDA and e-mail functions:

9. A method for portable computing and wireless communication of claim 8, in which the user has the option to execute a plurality of application programs on the microcomputer means, typically including *telephony programs, personal productivity programs, e-mail programs*.

(A06041 – A06043). Mr. Ditzik testified regarding the original claims. (A00498; A00591 – A00593). Mr. Blackburn, NetAirus' technical expert, discussed how the claims in a preliminary amendment (which were similar to the original claims filed in 1997), referred to a "handset" that performs PDA and e-mail functions. (A01248 – A01253).

Absent the trial court's improper instruction, the jury would have been free to read the original application claims and make its own determination as to whether those claims were a pertinent source of support for purposes of satisfying the written description requirement. In this regard, the trial court indicated to counsel that "you don't need to read [exhibits]" into the record. (A00576).

The trial court's error in refusing to instruct the jury regarding the original application claims was far from harmless, and certainly could have changed the results of the verdict. The jury should have been left to decide, based upon a proper instruction from the trial court, whether the original application claims

provided support for the written description of the asserted claims. Because the jury never had that opportunity, a new trial is warranted.

III. AS A MATTER OF LAW, THERE WAS NOT SUBSTANTIAL EVIDENCE TO SUPPORT THE FINDING OF LACK OF WRITTEN DESCRIPTION

The claims of the '380 patent are presumed valid, 35 U.S.C. § 282, and it was Apple's burden to adduce clear and convincing evidence at trial to prove invalidity for lack of an adequate "written description." *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1351 (Fed. Cir. 2011). Apple's only evidence on written description was through the testimony of its technical expert, Jeffrey Rodriguez, who alleged that the '380 patent specification did not adequately describe three claim elements: (1) a handset that can send and receive e-mail; (2) a handset that can selectively communicate; and (3) a handset that can perform PDA functions. (A01089 – A01090).

In denying NetAirus' post-trial motions, the trial court relied entirely upon Rodriguez's testimony in holding that there was "substantial evidence to support a jury verdict on the bases that the '380 patent lacked the PDA/handset and handset/e-mail limitations," and that "NetAirus has not shown that Rodriguez applied the incorrect standard in his testimony on written description." (A00027 – A00028; A00030). The trial court's holdings were erroneous as a matter of law and not supported by the evidence. Given the shortcomings of Rodriguez's

testimony, no reasonable juror could have returned a verdict in Apple's favor on the issue of written description. NetAirus was therefore entitled to JMOL on this issue. For the same reasons, the clear weight of the evidence as to satisfaction of the written description requirement was in NetAirus' favor, and the trial court erred in not granting NetAirus a new trial on this basis.

A. Rodriguez's Opinion As To "Written Description" Was Not Based Upon The Proper Legal Standard

With regard to the written description requirement, the critical inquiry is whether the inventor has provided a description of the claimed invention in sufficient detail such that a person of ordinary skill would understand that the inventor *was in possession* of the invention at the time of filing. *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1190-91 (Fed. Cir. 2014); *Koito Mfg. Co. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1154-55 (Fed. Cir. 2004). Rather than testifying based upon "possession" of the claimed invention, Rodriguez instead offered testimony according to his own legal standards – standards which are distinct from and irrelevant to the issue of written description. For example, Rodriguez testified that in order for the written description requirement to be satisfied, one must understand *how to make* the claimed invention:

The written description ... has to be sufficiently described so that a person having ordinary skill in the art would be able to take that written description in the patent and *understand how to repeat or how to make the claimed invention*.

(A01088 – A01089; emphasis added).

As a matter of law, opinions regarding enablement are irrelevant to the written description determination. This Court's decision in *Alcon* is on point. In *Alcon*, the trial court's finding that the asserted claims were invalid "for essentially the same reasons that they fail the enablement requirement" was reversed, with this Court explaining:

But written description is about whether the skilled reader of the patent disclosure can recognize that what was claimed corresponds to what was described; *it is not about whether the patentee has proven to the skilled reader that the invention works, or how to make it work, which is an enablement issue.*

Alcon, 745 F.3d at 1191 (emphasis added). Rodriguez's testimony was premised upon the wrong legal standard, and that testimony is accordingly insufficient to satisfy Apple's burden of demonstrating, by clear and convincing evidence, that the written description requirement was not satisfied in relation to the asserted claims of the '380 patent. *Integra Lifesciences I, Ltd. v. Merck KGaA*, 496 F.3d 1334, 1342 (Fed. Cir. 2007) ("[W]hen an expert witness' statement of the law is incorrect, that view of the law cannot be relied upon to support the verdict.").

B. Rodriguez's Conclusory Testimony Does Not Constitute Clear And Convincing Evidence

To the extent that Rodriguez did offer any testimony under the proper legal standard, it was far too conclusory to matter. Indeed, Rodriguez's testimony consisted of little more than recounting how he had reviewed the specification of

the '380 patent and been unable to locate a description of a handset that could: (1) function as a PDA; (2) send and receive e-mail; or (3) selectively communicate between WAN and LAN:

A. *So since I couldn't find any mention in the body of the patent, in the patent specification of a handset sending e-mail*, I had to conclude that there's no adequate written description of that feature.

A. *So since I couldn't find a description in the body of the patent, the patent specification, for a handset that can switch between high and low power*, I had to conclude that this doesn't meet the requirements -- the legal requirement for written description.

(A01092 – A01093; A01097 – A01098; emphasis added). Moreover, while Rodriguez explicitly recognized that the '380 patent specification disclosed PDAs, he summarily dismissed such disclosure because it appears in a section of the specification titled "Description of Prior Art." (A01098 – A01099).

Under this Court's precedent, Rodriguez's conclusory testimony fails to meet the stringent requirement for clear and convincing evidence of invalidity. The *Alcon* case is once again on point. There, the Court rejected an expert's conclusory testimony regarding written description:

Critically, Barr adduced no evidence, let alone clear and convincing evidence, that was probative of whether an ordinarily skilled artisan would not have understood from the disclosures of Alcon's '287 and '062 patents that the patentees invented, or possessed, the methods of the asserted claims. Without that evidence, there was no basis on which to find a lack of adequate written description.

Alcon, 745 F.3d at 1191-92. Conclusory expert testimony consisting "of little more than the statement 'I believe that the claim would be invalid, because I can't find any support for the claim in the specification'" does **not** constitute substantial evidence of invalidity for lack of written description. *CytoLogix Corp. v. Ventana Med. Sys., Inc.* 424 F.3d 1168, 1176 (Fed. Cir. 2005) (citing *Koito*, 381 F.3d at 1152). As such, Rodriguez's conclusory testimony cannot satisfy Apple's burden of demonstrating invalidity by clear and convincing evidence.

IV. AS A MATTER OF LAW, THE TRIAL COURT COMMITTED LEGAL ERROR ON THE ISSUE OF OBVIOUSNESS

In denying NetAirus' post-trial motions, the trial court held that there was substantial evidence to support the jury's majority verdict that the asserted claims of the '380 patent "**are**" invalid as obvious. (A00019 – A00020; A01105 – A01122; A01147 – A01171). The trial court's holding, much like Apple's evidence at trial, focused primarily on two combinations of prior art: (1) an article in the *San Francisco Chronicle* about a not-yet-sold Nokia 9000 cell phone, in combination with the European Digital Cellular Telecommunications Systems GSM standard ("the Nokia combination"); and (2) an article from BYTE Magazine describing an IBM Simon PDA, in combination with the same GSM standard ("the Simon combination"). (A00020 – A00023).

"A party seeking to invalidate a patent based on obviousness must demonstrate 'by clear and convincing evidence that a skilled artisan would have

been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)). While an analysis of any teaching, suggestion, or motivation to combine elements from different prior art references is useful in an obviousness analysis, to facilitate review, "this analysis should be made explicit." See *KRS Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418-19 (2007); see also *InTouch Techs.*, 2014 WL 1855416 at *21 ("A reason for combining disparate prior art references is a critical component of an obviousness analysis; this analysis should be made explicit.") (internal quotation omitted). Accordingly, this ultimate determination of obviousness is reviewed without deference, while any factual findings are reviewed for clear error. *Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1351 (Fed. Cir. 2010).

Here, the trial court's determination that the asserted claims of the '380 patent were obvious was erroneous as a matter of law and not supported by the evidence. (A00019 – A00022). Neither of the Nokia or Simon combinations disclose a handset that could "selectively" communicate with both a local area base unit and an external wide area network, as is required by the asserted claims of the '380 patent. The testimony provided by Apple's expert, Rodriguez, failed to

demonstrate otherwise, and certainly did not satisfy Apple's burden of demonstrating obviousness by clear and convincing evidence. The same is true of the "evidence" that Apple presented as to the motivation to form the relied upon combinations of prior art in the first instance. For these reasons, NetAirus was entitled to JMOL on the issue of obviousness.

A. The Finding That The Prior Art Combinations Taught The "Selectively" Element Of The Claims Is Erroneous

To prove that the asserted claim would have been obvious, Apple was required to show, by clear and convincing evidence, that *each and every limitation* of that claim would have been obvious to one of skill in the art at the time of the invention. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 24 (Fed. Cir. 2012) ("We do not invalidate the rest of the claims because they contain additional elements that [the defendant] has not established were either anticipated or obvious."); *see Honeywell Int'l, Inc. v. United States*, 609 F.3d 1292, 1300-01 (Fed. Cir. 2010) ("Given the failure to prove that the cited references disclose [claim] element (a)(3), the government has failed to carry its burden of proving by clear and convincing evidence that the claimed invention would have been obvious to one of skill in the art."). (A01210 – A01211; A01409 – A01413). Each asserted claim of the '380 patent requires that a handset be able to "selectively" communicate data to a local area base unit and a wide area network:

using said handset unit to *communicate, selectively*, the first and second data to and from the local area communication base unit and to communicate third and fourth data to and from an external wide area network....

transmitting a first wireless radio frequency (RF) signal comprising said ***data selectively to*** said local area base unit and to the external wide area network....

(A00242; emphasis added). The language of these claims, in essence, recites the ability of the *handset* to "select" between a local area base unit and an external wide area network.

There was not substantial evidence presented during trial to support the jury determination that the asserted claims were invalid as obvious because there was no evidence presented at trial regarding the "selectively" limitation of the asserted claims. During trial, Rodriguez relied upon the following demonstrative exhibit to support his testimony alleging that the Nokia combination rendered the asserted claims obvious:

Claims 1, 2, and 3	Nokia Combination
Handset	<input checked="" type="checkbox"/>
Local area communication base unit	<input checked="" type="checkbox"/>
External wide area network	<input checked="" type="checkbox"/>
Transmit power of handset	<input checked="" type="checkbox"/>
E-mail to local area	<input checked="" type="checkbox"/>
PDA	<input checked="" type="checkbox"/>
Cellular Telephone	<input checked="" type="checkbox"/>

DDX - 121

(A14663; see also A14664 – A14665). Noticeably absent from these demonstrative exhibits is any mention of the term "selectively." (A01179 – A01181). Rodriguez himself admitted this shortcoming on cross examination, acknowledging that "*[t]he word selectively is not on this [demonstrative] synopsis.*" (A01178 – A01181; emphasis added). Rodriguez made use of similar demonstratives with respect to the Simon combination. (A14666 – A14668).

Rodriguez admittedly based his obviousness analysis on whether "key elements" or "key features" of the asserted claims were, in his opinion, disclosed in the prior art:

I went through those documents carefully looking for disclosure of the *key elements* of the asserted claims in the '380 patent. And those documents, and a couple of related documents that I'll mention, did indeed disclose all of the *key features* that are part of the asserted claims in this case.

* * *

I came to the conclusion that the Simon device, combined with a couple of other publications, does disclose all of the *key features* in the asserted claims.

(A01114 (discussing Nokia combination; emphasis added); A01162 – A01163 (discussing Simon combination; emphasis added)). Here, the "selectively" element is a key feature of the claimed invention that Rodriguez inexplicably ignored. It is improper to "distill the invention down to a 'gist' or 'core,'" while disregarding express claim limitations, such as Rodriguez did with the term "selectively." *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed.

Cir. 1986) (vacating trial court's obviousness finding). Rodriguez's testimony fails to satisfy Apple's burden of proof on obviousness, as "[g]eneral and conclusory testimony ... does not suffice as substantial evidence of invalidity." *Koito*, 381 F.3d at 1152.

In denying NetAirus' post-trial motions, the trial court likewise failed to identify any evidence supporting the notion that either of the Nokia or Simon combinations disclosed the "selectively" limitation. The trial court summarized Rodriguez's testimony on obviousness as follows:

Rodriguez then testified about Trial Exhibit 696, which was part of the GSM standard from February 1995. *Id.* at 55-56. Rodriguez explained that the GSM standard disclosed two types of base transceiver stations: a BTS and a micro BTS, and that the network utilized adaptive power control. *Id.* at 56-57. Rodriguez testified that the micro BTS met the local area communication base unit element in the claim and that the BTS, or normal cell tower, met the external wide area network element of the claims. He also testified that the handset communicates back and forth with both the micro BTS and the BTS. *Id.* at 57-63. Rodriguez also explained that, through the adaptive power control feature of the GSM network, phones would communicate either with the BTS or micro BTS depending on the distance involved, and that the power from the normal BTS was much higher than from the local micro BTS: up to 640 watts versus up to 0.25 watts. *Id.* at 63-65. Thus, Rodriguez opined, in the Nokia 9000/GSM system, the transmission power used to transmit to the nearby local area communication base unit was often lower than that used for the more distant wide area network.

(A00020 – A00021) ("Rodriguez's reasoning concerning the [Simon] combinations was similar to his opinions on the Nokia 9000 combinations ..."). The term

"selectively" appears nowhere in the trial court's synopsis of Rodriguez's testimony.

Of equal, if not greater, importance is the fact that Rodriguez (and the trial court) failed to acknowledge that, in the GSM standard, it is the base station equipment, *as opposed to a handset*, that determines whether it is the BTS or the micro-BTS that communicates with the handset. (A05831). NetAirus' expert, Thomas Blackburn, gave un rebutted testimony regarding the GSM standard's failure to describe a handset that could selectively communicate between local and wide area networks:

[I]n conclusion, the – the patent requires the handset selectively communicate between the two different networks. ***It has to be the handset that does that.***

In the GSM system, it's ***not the handset*** that's doing that; ***it's the base station controller that's basically determining which base station transceiver to use.*** It's not the handset.

(A01283 – A01284). The record is bare of any evidence which might support a finding that the "selectively" element was obvious in light of either the Nokia combination or the Simon combination. As a consequence, Apple failed (as a matter of law) to present clear and convincing evidence to support an obviousness finding for the asserted claims of the '380 patent. The trial court's finding to the contrary is erroneous and should be reversed. Alternatively, the weight of the evidence on the issue of obviousness was clearly in NetAirus' favor, and the trial court erred in not granting NetAirus a new trial on this basis.

B. The Finding That Apple Presented Substantial Evidence Of A Motivation To Combine The Prior Art References Is Erroneous

Even if Apple had shown that either of the identified prior art combinations disclosed each and every limitation of each asserted claim (which it did not), this too would not be enough to sustain the jury's obviousness determination: "[o]bviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination." *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). As this Court has explained:

a challenger must demonstrate by clear and convincing evidence that a skilled artisan would have been *motivated to combine the teachings* of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.

ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc., 694 F.3d 1312, 1327 (Fed. Cir. 2012) (internal quotations omitted; emphasis added).

Here, the only "evidence" Apple offered regarding a motivation to combine was through Rodriguez's testimony. For the Nokia combination, Rodriguez testified:

Well, the *San Francisco Chronicle* article that disclosed this Nokia 9000 cell phone, it went on to explain that it's a GSM phone and that it operates under the GSM cellular network.

So a person having ordinary skill in the art at the time would know that in order to figure out how that phone functions, you could

look at the GSM standards document that describes in detail all of the principles for GSM cell phone communication.

(A01159 – A01160). Rodriguez's testimony regarding the Simon combination was equally conclusory:

Q. Taking into account this article about the Simon device and also the documents that you mentioned earlier about the GSM cellular network, would a person of ordinary skill have, at the time in 1997 – have thought to consider those references together?

A. Yes. As I explained, the GSM cellular network was in widespread use, primarily in Europe. It's since become in wide use in the United States. But at the time, someone working in the field would have certainly wanted to develop a device that could also work on the GSM cellular network in order to open up a broader market for the device.

(A01162). No explanation was provided as to *why* either of the combinations would be made. Likewise, Rodriguez failed to explain how an article about a device that operated on the *analog* Amps network could be predictably combined with a publication about a *digital* GSM network. (A05787; A05822 (identifying GSM as a "digital" telecommunications system)). Absent such testimony (of which Rodriguez provided none), these combinations cannot properly support an obviousness finding.

The case of *InTouch Technologies, Inc. v. VGO Communications, Inc.* is directly on point. In *InTouch*, the district court found that the record supported the jury's verdict of obviousness because the defendant's expert "provided several detailed explanations and reasons why a person of skill in the art might be

motivated to combine references" to find the elements of the claims. *InTouch Techs.*, 2014 WL 1855416 at *17. This Court reversed the district court's judgment of invalidity because the evidence of a motivation to combine provided by the defendant's technical expert was not substantial:

[W]e agree with InTouch that the evidence on which VGo relies is not substantial enough to support an obviousness finding. Indeed, it did not even come close. Dr. Yanco's testimony was plagued with numerous problems, including her failure to: (1) identify sufficient reasons or motivations to combine the asserted prior references; (2) focus on the relevant time frame of 2001; or (3) consider any objective evidence of nonobviousness.

While she opined that the references were like separate pieces of a simple jigsaw puzzle, she did not explain what reason or motivation one of ordinary skill in the art at the time of the invention would have had to place these pieces together.

A reason for combining disparate prior art references is a critical component of an obviousness analysis; "this analysis should be made explicit." *KSR*, 550 U.S. at 418 (arguments need to provide an "articulated reasoning with some rational underpinning" to make the asserted combinations) (quoting *In re Kahn*, 441 F.3d at 988). "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does ... because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." See *KSR*, 550 U.S. at 418-19.

We find that Dr. Yanco failed to provide the necessary "articulated reasoning with some rational underpinning" to support a conclusion of invalidity based on these combinations. See *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d at 988). Dr. Yanco's testimony was vague and did not articulate reasons why a person of ordinary skill in the art at the time of the invention would combine the references. See

Innogenetics, N.V. v. Abbott Labs., 512 F.3d 1363, 1373-74 (Fed. Cir. 2008) ("Such vague testimony would not have been helpful to a lay jury in avoiding the pitfalls of hindsight that belie a determination of obviousness.").

Dr. Yanco's testimony primarily consisted of conclusory references to her belief that one of ordinary skill in the art *could* combine these references, not that they *would* have been motivated to do so.

Id. at **18, 21. This Court has found expert testimony regarding a motivation to combine prior art insufficient where it "fail[ed] to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does.*" *ActiveVideo*, 694 F.3d at 1328 (emphasis in original); see also, *K/S Himpp v. Hear-Wear Techs., LLC*, ___ F.3d ___, 2014 WL 2179275, *3 (Fed. Cir. May 27, 2014) ("an assessment of basic knowledge and common sense as a replacement for documentary evidence for core factual findings lacks substantial evidence support."). Here, Rodriguez's testimony was fraught with the very same problems addressed by this Court in the *InTouch* and *ActiveVideo* cases. Such testimony is not substantial enough to support an obviousness finding. The trial court's holding to the contrary is erroneous and should be reversed.

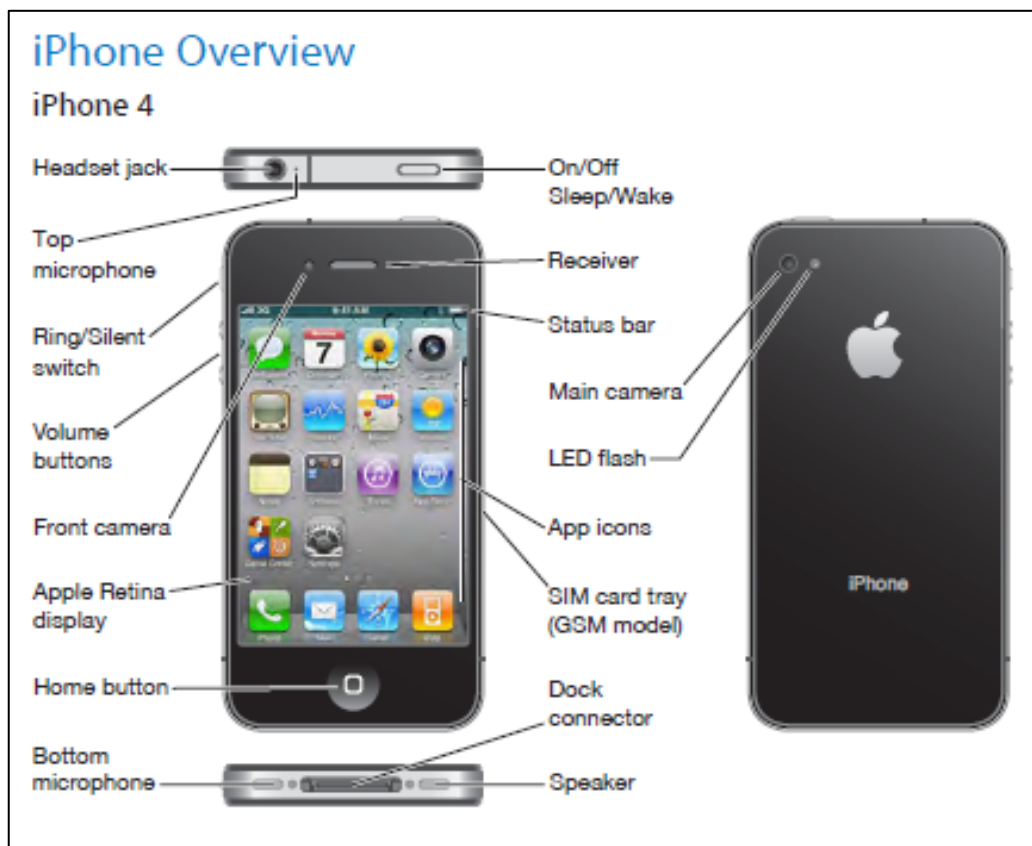
V. THE TRIAL COURT COMMITTED LEGAL ERROR ON THE ISSUE OF DIRECT INFRINGEMENT

At trial, NetAirus demonstrated that Apple had directly infringed the asserted claims of the '380 patent through its use of the iPhone 4. Apple limited its non-infringement defense to a single limitation of the asserted claims – that the transmit power level of the handset is lower when communicating with a local area network than when communicating with an external wide area network. The heart of the issue became whether there was any evidence that, in at least some instances, the transmit power level of the iPhone 4 is higher when transmitting data over a cellular network (the external wide area network) as opposed to a "Wi-Fi" network (the local area network).

When construed in a light most favorable to Apple, the evidence that was presented on this issue permits only one reasonable conclusion – that, in at least some instances of Apple's use of the iPhone 4, the "transmit power level" relationship of the asserted claims is satisfied, and, in those instances, Apple directly infringes. Judgment as a matter of law in NetAirus' favor as to the existence of direct infringement was, therefore, warranted. Hence, the trial court's denial of NetAirus' Rule 50(b) motion was erroneous, and should be reversed.

A. The Undisputed Evidence Presented At Trial Demonstrated That Apple Directly Infringed In At Least Some Instances



The documentary evidence that was provided to the jury on the issue of direct infringement made clear that the iPhone 4 was capable of being used by Apple (among others) in an infringing manner. By way of example, with reference to the limitations of claim 3 of the '380 patent, the documentary evidence of record demonstrated that the iPhone 4 qualified as a "handset" taking the form of a hand-held cellular telephone, and that the device was capable of providing "PDA functions" such as Contacts and Calendar:



iPhone Apps

The apps in the following table are included with iPhone.

Note: App functionality and availability may vary, depending on the country or region where you purchase and use iPhone.

 <p>Phone</p>	<p>Make calls, with quick access to recent callers, favorites, and all your contacts. Dial manually using the numeric keypad. Or just use voice dialing. Visual voicemail presents a list of your voicemail messages—just tap to listen to any message, in any order. Make FaceTime video calls (iPhone 4). See Chapter 5, “Phone,” on page 60.</p>
 <p>Calendar</p>	<p>View and search your MobileMe, iCal, Microsoft Entourage, Microsoft Outlook, or Microsoft Exchange calendars. Enter events on iPhone and they sync back to the calendar on your computer. Subscribe to calendars. See the birthdays you’ve entered in Contacts. Set alerts to remind you of events, appointments, and deadlines. See Chapter 10, “Calendar,” on page 111.</p>

Contacts



From a contact’s Info screen, a quick tap lets you make a phone call, create a new email message, find the location of their address, and more. See “Searching Contacts” on page 214.

(A02942; A02947; A03003; see also, asserted claims at A00242; A00244).

The documentary evidence further demonstrated that the iPhone 4 was capable of transmitting and receiving data: (1) to and from a "local area communication base unit" by way of the device's connectivity to a Wi-Fi network; or, alternatively (2) to and from an "external wide area network" by way of the device's connectivity to a cellular data network. The documents that were moved into evidence also made clear that the transmitted data could take the form of "computer e-mail."

Status Icons

The icons in the status bar at the top of the screen give information about iPhone:


Status icon	What it means
 Cell signal*	Shows whether you're in range of the cellular network and can make and receive calls. The more bars, the stronger the signal. If there's no signal, the bars are replaced with "No service."
 Wi-Fi*	Shows that iPhone is connected to the Internet over a Wi-Fi network. The more bars, the stronger the connection. See "Joining a Wi-Fi Network" on page 23.

Connecting to the Internet

iPhone connects to the Internet whenever you use Mail, Safari, YouTube, Stocks, Maps, Weather, the App Store, or the iTunes Store.

How iPhone Connects to the Internet

iPhone connects to the Internet using either a Wi-Fi network or a cellular data network. iPhone does the following, in order, until connected:



Mail

iPhone works with MobileMe, Microsoft Exchange, and many of the most popular email systems—including Yahoo!, Google, and AOL—as well as most industry-standard POP3 and IMAP email systems. View and print PDFs and other attachments. Save attached photos and graphics to your Camera Roll album. See Chapter 6, "Mail," on page 75.

(A02947; A02950; A02955; see also, asserted claims at A00242; A00244).

Finally, the unrebutted documentary evidence also demonstrated that the iPhone 4 was capable of switching between these dual communication pathways (Wi-Fi and cellular) as required by the "selectively" limitation of the asserted claims.

- If no Wi-Fi networks are available or you choose not to join any, iPhone connects to the Internet over a cellular data network (3G, E, or 4G). You can prevent iPhone from using cellular data in Settings. See "Network" on page 193.

Once you join a Wi-Fi network manually, iPhone automatically connects to it whenever the network is in range. If more than one previously used network is in range, iPhone joins the one last used.

(A02955; A02956; see also, asserted claims at A00242; A00244).

In terms of witness evidence, NetAirus' technical expert, Thomas Blackburn, testified that the iPhone 4 operated in a manner that utilized each of the aforementioned features. (A00806 – A00809; A00813 – A00823; A00828 – A00832). Apple's technical expert, Rodriguez, offered no rebuttal testimony directed to the existence (or absence) of any of the aforementioned features in connection with the iPhone 4. Indeed, Rodriguez could not even recall whether he had ever once examined an actual iPhone 4 in conjunction with his involvement in the case. (A01205).

Aside from the claim limitations discussed above, the asserted claims of the '380 patent additionally require that the "transmit power level" of the claimed handset unit, when transmitting data to the "local area communication base unit," be lower than when transmitting data to the "external wide area network." (A00242, A00244). Thus, in relation to the accused iPhone 4, the issue became whether the device was capable of being operated in a manner such that the

"transmit power" associated with a Wi-Fi data transmission could be less than that associated with a cellular data transmission. *The evidence presented to the jury demonstrated, without question, that the answer to that inquiry was definitively "yes."* In this regard, William Noellert, an Apple engineer having direct knowledge as to the iPhone 4's technical capabilities, testified that the transmit power of the device during Wi-Fi communications was, in all instances, approximately 15 dBm, while the transmit power of the device during cellular communications was capable of being as high as 24 dBm:

Q. I believe you testified on direct examination that the transmit power range for the Wi-Fi radio in the iPhone 4 was approximately 14 to 15 dBms; is that correct?

A. That's correct.

Q. You also testified that the maximum transmit power level for the cellular radio is up to about 24 dBms; correct?

A. That's correct.

Q. And it's technically possible, is it not, for the cellular radio to operate at a higher transmit power level than that which the Wi-Fi radio network operates at?

A. Yes. It is technically possible.

(A01040 – A01041). Noellert even confirmed that Apple calibrates each iPhone 4 to ensure that the device can in fact conduct cellular transmissions at power levels exceeding 15 dBm. (A01041). His testimony on these points was clear and un rebutted. In view of Noellert's testimony, in combination with the other

evidence of record discussed above, it was abundantly clear that the iPhone 4 was capable of being used in an infringing manner.

The asserted claims of the '380 patent are method claims. (A00242; A00244). Thus, to establish direct infringement by Apple, NetAirus needed to prove that the aforementioned capabilities of the iPhone 4 had actually been used by Apple in the manner set forth by the asserted claims of the '380 patent. *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317-18 (Fed. Cir. 2005). As a matter of law, NetAirus was required to demonstrate only one instance of infringement during the relevant time period, and NetAirus was permitted to demonstrate the existence of that instance through circumstantial evidence. *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1364 (Fed. Cir. 2012); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009).

At trial, NetAirus presented evidence from one of Apple's own employees as to the existence of direct infringement. Mr. William Noellert testified that he owned an iPhone 4. (A01037). He testified that he made telephone calls using the device. (A01037). He testified that he used various PDA functions of the device, including the Contacts and Calendar features. (A01037). He testified that he sent and received data to and from the device using, in a selective manner, both Wi-Fi and cellular connections. (A01038 – A01040). He testified that such data, on occasion, took the form of computer e-mail. (A01038). There was no rebuttal to

Noellert's testimony on any of these points by any other witness that was called to testify at trial.

In addition to Apple's admissions that came by virtue of Noellert's testimony, NetAirus also introduced evidence into the record from its expert, Blackburn, who had personally witnessed an Apple employee carrying out the majority of the claimed steps in conjunction with the employee's demonstration of an iPhone 4 that was conducted at an Apple store. (A00806 – A00809). As was the case with Noellert's testimony regarding his own use of the iPhone 4, Blackburn's testimony setting forth his first-hand account of an Apple employee using an iPhone 4 was unrebutted.

All that remained to establish direct infringement was for NetAirus to demonstrate that Apple's use of an iPhone 4 satisfied, in some instance, the "transmit power level" limitation of the asserted claims. To do so, NetAirus relied primarily upon a series of probability curves which Noellert himself admitted would be applicable to anyone's use of an iPhone 4, including his own use:

Q. Now, you testified about how you used your iPhone 4 when you owned that device; correct?

A. Yes.

Q. Would the probability curves that you see here apply to your own use of that device?

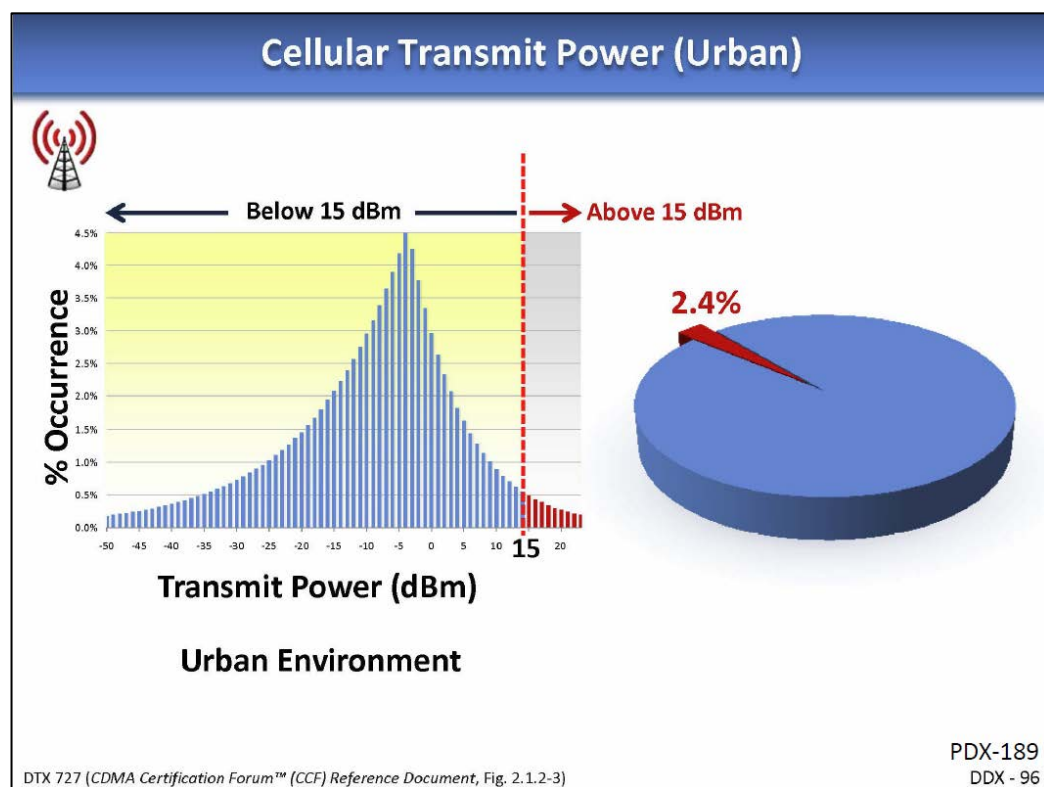
A. Likely, yes.

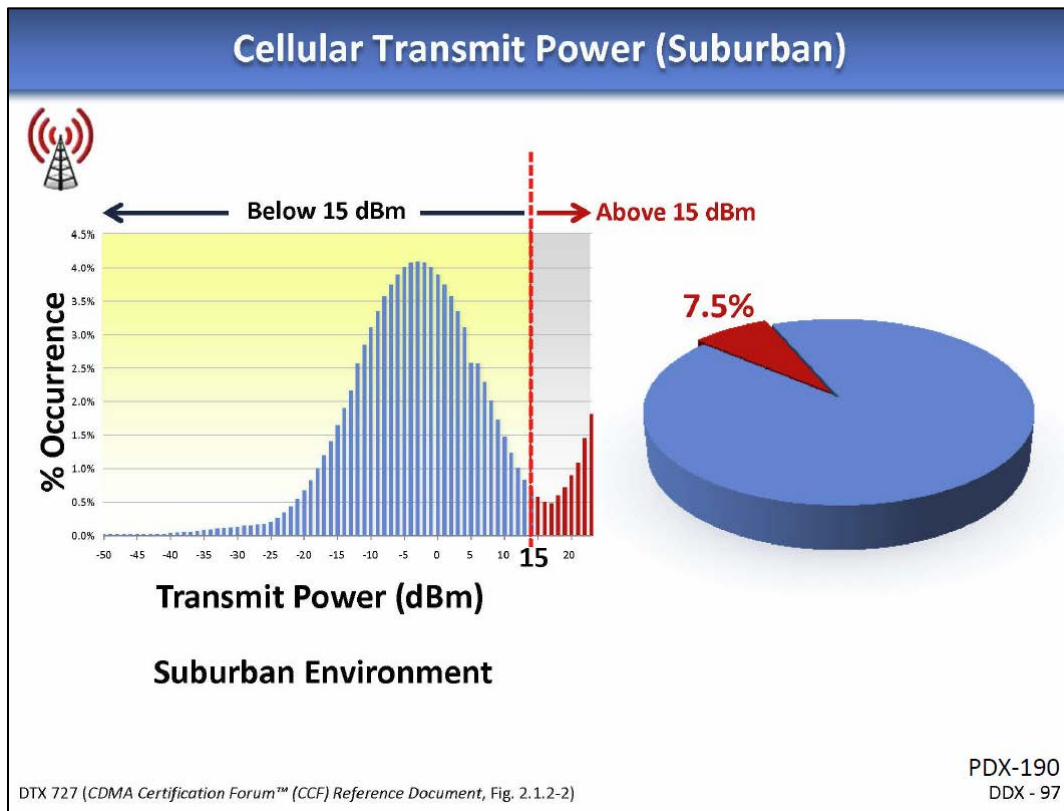
Q. And the same would be true with respect to any other user of an iPhone 4; correct?

A. These curves are very general. They would probably apply to any phone.

(A01044). The referenced probability curves were introduced into evidence.

(A01024 – A01025; A01042; A05989). Annotated versions of those probability curves were shown to the jury in demonstrative form during Noellert's testimony, as reproduced below:





(A01042 – A01044; see also, A00012 – A00013; A14661; A14662). As Noellert would admit, the probability curves demonstrated that, in at least some percentage of the applicable instances of use of an iPhone 4 device, the transmit power associated with a cellular communication would exceed the 15 dBm level at which the device's Wi-Fi communications were always transmitted:

- Q. Do you see that towards the right of each graph there is some highlighted areas; correct?
- A. I see those, yes.
- Q. What do those represent?

A. *Those represent the likelihood that the device would transmit at those given power levels.*

Q. *And the highlighted power levels are all above 15 dBms; correct?*

A. It's a little difficult for me to see but *I believe so, yes.*

(A01042, emphasis added; see also, A01043 – A01044). And not to forget, Noellert had also confirmed that Apple calibrates each iPhone 4 to ensure that the device can in fact conduct cellular transmissions at power levels exceeding 15 dBm. (A01041). This evidence, taken alone, demonstrates infringement. NetAirus' expert, Blackburn, offered additional testimony regarding specific instances in which he had witnessed an iPhone 4 satisfying the "transmit power level" relationship of the asserted claims of the '380 patent. (A00837 – A00847). The record was bare of any evidence demonstrating that infringement by Apple was nonexistent, or that such infringement was impossible.

The evidence presented during trial, even discounting the entirety of Blackburn's testimony as to the "transmit power level" claim limitation, could have led to no finding other than one of infringement. By Apple's own admission, the probability curves established that acts of infringement by Noellert and other Apple employees were likely. The fact that those acts of infringement may have accounted for only a small percentage of Apple's total use of the iPhone 4 device was irrelevant to liability for infringement. As a matter of law, "an accused

product that sometimes, but not always, embodies a claimed method nonetheless infringes." *Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp.*, 55 F.3d 615, 622-23 (Fed. Cir. 1995); see also, *Dynetix Design Solutions Inc. v. Synopsys Inc.*, 2013 WL 2053890, *4 (N.D. Cal. May 14, 2013); *Philips Elecs. N. Am. Corp. v. Contec Corp.*, 411 F. Supp. 2d 470, 475 (D. Del. 2006). Judgment as a matter of law in NetAirus' favor on the issue of direct infringement was therefore warranted.

B. The Trial Court Erred In Denying NetAirus' Renewed Motion For Judgment As A Matter Of Law

The trial court's denial of NetAirus' Rule 50(b) motion was legal error, and should be reversed. While *de novo* review is the applicable standard here, the stated reasons upon which the trial court appears to have denied NetAirus' renewed motion for judgment as a matter of law do warrant some attention. The trial court focused the majority of its opinion on this issue to critiquing the testimony of NetAirus' technical expert, Mr. Blackburn. (A00013 – A00017). Regardless of Blackburn's credibility, the fact remains that Apple produced no evidence whatsoever (either from a witness or by way of documents) to rebut Blackburn's testimony regarding the infringing acts which he witnessed an Apple employee perform at an Apple store. Importantly, even if Blackburn's testimony were to be completely discounted and discredited in its entirety, the evidence which remained (*i.e.*, that supplied by Apple's own documents and its witness, Noellert) still could only have led to a finding of infringement.

The trial court also hinged its denial of NetAirus' Rule 50(b) motion on the notion that NetAirus was making an untimely claim construction argument that was "premised on an undue expansion of the meaning of the claims." (A00017). Citing to the case of *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005), the trial court went on to state:

Thus, if, as NetAirus argues, the method [claim] can be satisfied by isolated acts that occur months apart, separated by months of continuous noninfringing activity, then the method claims, which require the performance of all the claimed steps, would be converted to an apparatus claim covering a device with the mere capability of performing the method."

(A00017). The referenced citation from *NTP*, however, provides no legal support for the trial court's principle of "conversion", and NetAirus is aware of no legal authority under which such a principle would be applicable here. To this end, the asserted claims of the '380 patent recite steps that are not in any way bound by a specific time period or order of progression. (A00242; A00244). In fact, the patent claims expressly state that such limitations are not consistent with the invention, reciting "wherein the communication of the first, second, third and fourth data ***are not necessarily performed simultaneously***," and further reciting that the claimed steps may be performed "***in any order***." (A00242; A00244, emphasis added).

Similarly, the asserted claims do not in any way suggest that the recited steps must be performed without the occurrence of other intervening actions or

steps that, taken in isolation, may be non-infringing. (A00242; A00244). Such limitations simply do not exist in the claims. And at no point in time throughout the history of this case did Apple ask the trial court to construe the asserted claims of the '380 patent in a manner which imposed any of the aforementioned limitations. To the extent that anything has been untimely in relation to the claim construction process, it is Apple's belated attempt (and the trial court's apparent adoption of that attempt) to now read temporal and sequential limitations into the asserted claims in an effort to support an otherwise unsupportable finding of non-infringement.

The trial court's denial of NetAirus' Rule 50(b) motion was erroneous with respect to the issue of direct infringement, and should be reversed.

VI. NETAIRUS IS ENTITLED TO A NEW TRIAL ON THE ISSUE OF DIRECT INFRINGEMENT

NetAirus is entitled to a new trial on the issue of direct infringement for two independent reasons. First, the jury's verdict of non-infringement was contrary to the clear weight of the evidence that was presented during trial. Second, the trial court failed to properly instruct the jury with respect to the applicable law on direct infringement, particularly in view of the erroneous statements made by Apple during its closing argument. For these reasons, whether alone or in combination, a new trial on direct infringement was warranted pursuant to Fed. R. Civ. P. 59.

A. The Jury's Verdict Was Contrary To The Clear Weight Of The Evidence

As discussed above in relation to NetAirus' motion for judgment as a matter of law, the evidence introduced at trial on the issue of direct infringement was such that there was no legally sufficient basis upon which a reasonable juror could have returned a verdict in Apple's favor. To the extent that this Court holds differently, the fact remains that the clear weight of the evidence was in NetAirus' favor on this issue. As a matter of law, "the existence of substantial evidence does not ... prevent the court from granting a motion for a new trial pursuant to Fed. R. Civ. P. 59 if the verdict is against the clear weight of the evidence." *Landes Constr. Co. v. Royal Bank of Canada*, 833 F.2d 1365, 1371 (9th Cir. 1987). Here, "substantial" evidence in Apple's favor as to direct infringement was lacking, the evidence instead being completely one-sided in favor of NetAirus.

In its order denying NetAirus' motion for a new trial, the trial court dedicated a single paragraph to its analysis of this particular issue. (A00030). There, the trial court summarily characterizes NetAirus' request as "unpersuasive" because it "is, in effect, a request that [NetAirus'] views about, and interpretation of, the evidence should be accepted in place of the findings made by the jury following the trial." (A00030). The trial court's characterization is wrong. This is not an instance in which the trial court was asked to substitute its evaluations for those of the jurors. Rather, NetAirus asks for recognition that the jury's verdict

was against the clear weight of the evidence, and that allowing that verdict to stand constitutes a miscarriage of justice. That is the one and only conclusion which the evidence introduced at trial supports. Notably, while the trial court suggests that "Apple offered percipient and expert testimony from which the jury could reasonably have made the finding[]" of non-infringement, no such affirmative evidence is identified. (A00030).

The evidence that was introduced at trial as to Apple's direct infringement of the '380 patent clearly weighed in favor of NetAirus, and that evidence was so one-sided that it should have provided the trial court with a firm conviction that a mistake had been committed when the jury returned a verdict of non-infringement. The trial court abused its discretion in holding otherwise in conjunction with denying NetAirus' motion for a new trial pursuant to Rule 59.

B. The Court Failed To Properly Instruct The Jury

In preparation for trial, NetAirus requested that the trial court provide the following instruction to the jury:

Imperfect practice of an invention does not avoid infringement. An accused product that sometimes, but not always, embodies or performs the claim limitations nonetheless infringes.

(A12884). NetAirus' request for this instruction was prompted by an indication from Apple that it intended to present arguments at trial based on the frequency of use and/or performance of the claimed methods which Apple had been accused of

infringing. (A12885). The trial court declined to provide the requested instruction on the grounds that it was "unnecessary and potentially confusing." (A00046). NetAirus thereafter filed an objection to the trial court's ruling in this regard. (A13130 – A13131).

As anticipated, the issue of "part-time infringement" was squarely before the jury during trial. This was particularly so with respect to the set of probability curves discussed above. Having no rebuttal to Noellert's admission regarding the applicability of those probability curves, Apple embarked on a mission to confuse the jury by arguing that the probability curves conclusively established *non-infringement*:

And why is [Noellert's testimony] important? ***It actually proves non-infringement.*** Mr. Noellert said the phone operates such that it's in this section that I've highlighted here. And that red line is where the Wi-Fi signal is. ***According to Mr. Noellert's testimony*** that was uncontroverted in this case, testimony that nobody disputed, ***there's no infringement.***

(A01455, emphasis added; see also A01456 ("That testimony established non-infringement. ... Apple proved non-infringement.")).

Apple's characterization of the evidence was grossly mistaken, both as a matter of fact and as a matter of law. As discussed above, far from proving up non-infringement of the asserted patent claims, the probability curves established that acts of infringement by Noellert and other Apple employees were likely. That those acts of infringement may have accounted for only a small percentage of

Apple's (or any other user's) total use of the iPhone 4 was irrelevant with respect to liability for infringement.

The case of *Bell Communications* is on point here. Much like the method claims of the '380 patent at issue in the present case, the claim at issue in *Bell Communications* was drawn to "a **method** for transmitting a packet over a system comprising a plurality of networks interconnected by gateways." *Bell Commc'ns*, 55 F.3d at 618 (emphasis added). This Court rejected the accused infringer's argument that the method step of assigning the one spanning tree along which the packet travels to its specified destination was not present because "the record does not make it clear that Vitalink's DLS system never uses the claimed method." *Id.* at 622 (emphasis in original). The Court explained the controlling legal principle as follows:

While we express no view on the ultimate question whether Vitalink's DLS system infringes Claim 6, either literally or by equivalents, it should be noted that any future infringement analysis respecting the assigning step should be undertaken with due attention to the principle that ***an accused product that sometimes, but not always, embodies a claimed method nonetheless infringes.***

Id. at 622-23 (emphasis added; citations omitted).

The rule of *Bell Communications* has been applied consistently to method claims ever since. By way of example, in *Dynetix Design Solutions*, the district court held:

It is irrelevant to point out scenarios in which the accused product might not infringe; "an accused product that sometimes, but not always, embodies a claimed method nonetheless infringes." ***As long as the accused product sometimes practices every step of the claim, it will infringe.***

Dynetix Design Solutions, 2013 WL 2053890 at *4 (emphasis added; citations omitted). And, in *Philips Electronics North America Corp.*, the district court held:

Defendants contend that, because their URCs embody both the ***patented "autoscan" method***, as well as a non-infringing method of programming, Philips cannot show that any customer actually used the patented method. (D.I. 532 at 16.) However, it is a well-settled principle that 'an accused product that sometimes, but not always, embodies a claimed method nonetheless infringes.' *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 623 (Fed. Cir. 1995). Here, there is no dispute that Defendants' URCs contain the patented method for programming the URC, as well as a non-infringing method. Thus, Remote Solutions' URCs infringe the patent, and more specific evidence of direct infringement is not necessary.

Philips Elecs. N. Am. Corp., 411 F. Supp. 2d at 474 (emphasis added). In short, the rule that "part-time infringement nevertheless constitutes infringement" applies to method claims like those of the '380 patent that were before the jury in this case.

Apple's mischaracterization of the evidence that had been presented to the jury on the issue of direct infringement seized precisely on the void that had been created by the trial court's refusal to provide the jury with an instruction addressing part-time infringement. The resultant legal error was far from harmless; indeed, it was unquestionably prejudicial. In view of Apple's arguments, the trial court's

refusal to provide the jury with the highly relevant instruction that NetAirus had requested was tantamount to directing a verdict in Apple's favor:

[A] litigant is entitled to have the jury charged concerning his theory of the case if there is any direct or circumstantial evidence to support it. *See, e.g., Strudl v. American Family Mutual Insurance Co.*, 536 F.2d 242, 246 (8th Cir. 1976); *Blassingill v. Waterman Steamship Corp.*, 336 F.2d 367, 368 (9th Cir. 1964). ***A failure so to charge is, in effect, tantamount to directing a verdict for the opposing party on the disputed issue.***

Don Burton, Inc. v. Aetna Life & Cas. Co., 575 F.2d 702, 706 (9th Cir. 1978) (emphasis added). Here, the jury instructions as a whole omitted NetAirus' entire theory of direct infringement, as embodied in its proposed jury instruction directed to "part-time infringement." No other jury instruction that was given touched on this critical legal principle.

In the wake of this lack of critical guidance, a miscarriage of justice occurred. After deliberating for several days, a slight majority of the jury, in a 5-3 decision, returned a verdict of non-infringement in Apple's favor. (A00004, A01598). As the record reflects, the deliberation process was marred by confusion. The jury submitted a multitude of questions and notes to the trial court, many of which indicated that the jury was unable to reach a unanimous verdict as to any issue in the case. (A13325; A13326; A13332). The taint stemming from Apple's mischaracterization of the evidence pertaining to direct infringement was a chief contributor to the jury's confusion, and the trial court's failure to properly

instruct the jury is what very likely enabled the jury to return its unsupportable finding of non-infringement in the first instance. In view of the trial court's erroneous jury instructions, NetAirus was entitled to a new trial on the issue of direct infringement. *Commil*, 720 F.3d at 1366-67 (granting new trial where instruction was erroneous and "could have" changed the result). The trial court erred in holding to the contrary, and that decision should be reversed.

CONCLUSION

The judgment should be reversed or, alternatively, vacated and the case remanded for new trial.

Dated: June 6, 2014

Respectfully submitted,

/s/ Dean D. Niro

Raymond P. Niro

Dean D. Niro

Robert A. Conley

NIRO, HALLER & NIRO

181 West Madison Street, Suite 4600

Chicago, Illinois 60602

Phone: (312) 236-0733

Fax: (312) 236-3137

rniro@nshn.com; dniro@nshn.com

rconley@nshn.com

*Attorneys for Plaintiff-Appellant,
NetAirus Technologies, LLC*

PROOF OF SERVICE

The undersigned hereby certifies that on June 6, 2014 I caused the foregoing **BRIEF OF PLAINTIFF-APPELLANT NETAIRUS TECHNOLOGIES, LLC** to be electronically filed through the CM/ECF system, which will send a notice of electronic filing to counsel for all parties to the action who are registered in the CM/ECF system. Copies of the above-mentioned document have also been served by e-mail to the following:

Ashlee N. Lin
MILBANK TWEED HADLEY &
MCCLOY, LLP
601 South Figueroa Street, 30th Floor
Los Angeles, CA 90017
Telephone: (213) 892-4000
Facsimile: (213) 629-5063
Email: anlin@milbank.com

Mark S. Davies
T. Vann Pearce, Jr.
E. Joshua Rosenkranz
ORRICK, HERRINGTON &
SUTCLIFFE LLP
1152 15th Street, N.W.
Washington, DC 20005
Telephone: (202) 339-8400
Facsimile: (202) 339-8500
Email: mark.davies@orrick.com
Email: vpearce@orrick.com
Email: jrosenkranz@orrick.com

Attorneys for Defendant-Appellee, Apple Inc.

Dated: June 6, 2014

/s/ Dean D. Niro

Dean D. Niro

*Attorney for Plaintiff-Appellant,
NetAirus Technologies, LLC*

CERTIFICATE OF COMPLIANCE

The undersigned hereby certifies that this brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B). The brief contains 13,805 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b).

This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared using Microsoft Word 2010 in Times New Roman, a proportionally spaced typeface, and 14-point size font.

Dated: June 6, 2014

/s/ Dean D. Niro

Dean D. Niro
*Attorney for Plaintiff-Appellant,
NetAirus Technologies, LLC*

ADDENDUM

ADDENDUM TABLE OF CONTENTS

1. Final Judgment, Docket No. 697, 01/02/2014 (A00001-A00002)
2. Special Verdict Form As To Foreperson Signature, Docket No. 670, 12/04/2013 (A00003-A00007)
3. Order Denying Plaintiff's Motion For New Trial And Renewed Motion For Judgment As A Matter Of Law, Docket No. 718, 03/07/2014 (A00008-A00031)
4. Order Regarding Disputed Jury Instructions And Disputed Verdict Form, Docket No. 638, 11/18/2003 (A00045-A00047)
5. United States Patent No. 7,103,380, Ditzik, "Wireless Handset Communication System," 09/05/2006 (A00226-A00242)
6. United States Patent Ex Parte Reexamination Certificate No. 7,103,380 C1, Ditzik, "Wireless Handset Communication System," 10/08/2012 (A00243-A00244)

ADDENDUM 1

UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA

NETAIRUS TECHNOLOGIES, LLC,
a California limited liability company,

Plaintiff,

vs.

APPLE INC., a California
corporation,

Defendant.

Case No.: 2:10cv03257-JAK-E

FINAL JUDGMENT

JS-6

APPLE INC., a California corporation,
Counter-Claimant,

vs.

NETAIRUS TECHNOLOGIES, LLC,
a California limited liability company,
Counter-Defendant

FINAL JUDGMENT

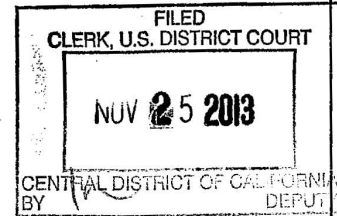
A jury trial commenced in this action on November 12, 2013. ECF No. 628. On November 25, 2013, the parties waived their rights to a unanimous verdict under Federal Rule of Civil Procedure 48, and the jury reached a majority verdict in favor of Defendant Apple Inc. ("Apple") on all matters tried. ECF Nos. 656, 670. Pursuant to Federal Rule of Civil Procedure 58, and in accordance with the jury's verdict, the Court hereby **ORDERS, ADJUDGES, DECLARES, AND DECREES** that:

FINAL JUDGMENT

A00001

ADDENDUM 2

ORIGINAL



IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA, WESTERN DIVISION

NETAIRUS TECHNOLOGIES, LLC,
a California limited liability company,
Plaintiff,

v.

APPLE, INC., a California corporation,
Defendant.

Case No. 2:10-cv-03257 JAK-E

SPECIAL VERDICT

**REDACTED VERDICT FORM AS TO
FOREPERSON SIGNATURE**

A00003

VERDICT FORM

When answering the following questions and filling out this Verdict Form, please follow the directions provided throughout the form. Your answer to each question must be agreed upon by at least five jurors, which is a majority. Some of the questions contain legal terms that are defined and explained in detail in the Jury Instructions. Please refer to the Jury Instructions if you are unsure about the meaning or usage of any legal term that appears in the questions below.

We, a majority of the jury, agree to the answers to the following questions and return them under the instructions of this Court as our verdict in this case.

FINDINGS ON INFRINGEMENT CLAIMS

1. Did NetAirus prove by a preponderance of the evidence that Apple directly infringed the following asserted claims of the '380 Patent?

Select YES or NO for each of the listed claims in the spaces provided below.

"Yes" is a finding for NetAirus that the claim is infringed.

"No" is a finding for Apple that the claim is not infringed.

Claim 3	Yes _____	No <u>X</u>
Claim 7	Yes _____	No <u>X</u>
Claim 9	Yes _____	No <u>X</u>
Claim 10	Yes _____	No <u>X</u>
Claim 11	Yes _____	No <u>X</u>
Claim 12	Yes _____	No <u>X</u>

1 2. Did NetAirus prove by a preponderance of the evidence that Apple
2 induced the infringement of the following asserted claims of the '380 patent?

3
4 Select YES or NO for each of the listed claims in the spaces provided below.

5 "Yes" is a finding for NetAirus that the claim is infringed.

6 "No" is a finding for Apple that the claim is not infringed.

7
8 Claim 3 Yes _____ No X

9 Claim 7 Yes _____ No X

10 Claim 9 Yes _____ No X

11 Claim 10 Yes _____ No X

12 Claim 11 Yes _____ No X

13 Claim 12 Yes _____ No X

14
15 **FINDINGS ON INVALIDITY DEFENSES**

16 No matter how you answered Questions 1 and 2, you must answer Questions
17 3 and 4.

18
19 3. Did Apple prove by clear and convincing evidence that any of the claims
20 listed below are invalid due to obviousness?

21
22 Select YES or NO for each of the listed claims in the spaces provided below.

23 "Yes" is a finding for Apple that the claim is invalid.

24 "No" is a finding for NetAirus that the claim is not invalid.

25
26 Claim 3 Yes X No _____

27 Claim 7 Yes X No _____

1	Claim 9	Yes	<u>X</u>	No	<u> </u>
2	Claim 10	Yes	<u>X</u>	No	<u> </u>
3	Claim 11	Yes	<u>X</u>	No	<u> </u>
4	Claim 12	Yes	<u>X</u>	No	<u> </u>

5
6 4. Did Apple prove by clear and convincing evidence that any of the claims
7 listed below are invalid due to lack of written description?

8
9 Select YES or NO for each of the listed claims in the spaces provided below.

10 "Yes" is a finding for Apple that the claim is invalid.

11 "No" is a finding for NetAirus that the claim is not invalid.

12					
13	Claim 3	Yes	<u>X</u>	No	<u> </u>
14	Claim 7	Yes	<u>X</u>	No	<u> </u>
15	Claim 9	Yes	<u>X</u>	No	<u> </u>
16	Claim 10	Yes	<u>X</u>	No	<u> </u>
17	Claim 11	Yes	<u>X</u>	No	<u> </u>
18	Claim 12	Yes	<u>X</u>	No	<u> </u>
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

FINDINGS ON DAMAGES (IF APPLICABLE)

If you answered Yes for any claim in **either** of Questions 1 or 2 and you answered "No" for that same claim in both Questions 3 and 4, proceed to answer Question 5. Otherwise, do not answer Question 5 and proceed to check and sign the verdict form.

5. What sum of money, if paid now in cash, would adequately compensate NetAirus for the infringement you have found?

\$ _____

DATED: Nov. 25, 2013 By: _____

Presiding Juror

A00007

ADDENDUM 3

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Present: The Honorable JOHN A. KRONSTADT, UNITED STATES DISTRICT JUDGE

Kane Tien for Andrea Keifer

Not Reported

Deputy Clerk

Court Reporter / Recorder

Attorneys Present for Plaintiffs:

Attorneys Present for Defendants:

Not Present

Not Present

Proceedings: **(IN CHAMBERS) ORDER DENYING PLAINTIFF'S MOTION FOR NEW TRIAL AND RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW (DKTS. 704 and 707)**

I. INTRODUCTION

NetAirus Technologies, LLC ("NetAirus" or "Plaintiff") contends that Apple, Inc. ("Apple" or "Defendant") infringes U.S. Patent No. 7,103,380 (the "380 Patent"). Trial of this matter began on November 12, 2013; it ended with a jury verdict for Defendant on November 25, 2013.

NetAirus filed a Motion for a New Trial Pursuant to Federal Rule of Civil Procedure 59 ("New Trial Motion"), Dkt. 707, and a Renewed Motion for Judgment as a Matter of Law Pursuant to Federal Rule of Civil Procedure 50(b) ("JMOL Motion"). Dkt. 704. The parties filed opposing and reply papers as to both motions. Dkts. 712-15. The Court conducted a hearing on both motions on March 3, 2014, and then took them under submission. For the reasons stated in this order, both motions are **DENIED**.

II. ANALYSIS

A. Legal Standard

1. Motion for New Trial

Fed. R. Civ. P. 59 provides that a trial court may grant a new trial "after a jury trial, for any reason for which a new trial has heretofore been granted in an action at law in federal court." Because a motion under Rule 59 presents a procedural issue that is not unique to patent law, such a motion is governed by the law of the regional circuit. *Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 638 (Fed. Cir. 2011). Because "Rule 59 does not specify the grounds on which a motion for a new trial may be granted," the court is "bound by those grounds that have been historically recognized." *Zhang v. Am. Gem Seafoods, Inc.*, 339 F.3d 1020, 1035 (9th Cir. 2003). Those grounds include: (1) a verdict that is "contrary to the clear weight of the evidence;" (2) a verdict that is "based upon false or perjurious evidence;" or (3) "to prevent a miscarriage of justice." *Molski v. M.J. Cable, Inc.*, 481 F.3d 724, 729 (9th Cir. 2007) (citation and quotation omitted).

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Medtronic, Inc., 265 F.3d 1294, 1303 (Fed. Cir. 2001) (“We apply the law of the regional circuit to which the district court appeal normally lies unless the issue pertains to or is unique to patent law.”).

Under Ninth Circuit law, a judgment as a matter of law requires that “the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury’s verdict.” *Harper v. City of Los Angeles*, 533 F.3d 1010, 1021 (9th Cir. 2008) (quoting *Pavao v. Pagay*, 307 F.3d 915, 918 (9th Cir. 2002)). “JMOL should be granted only if the verdict is against the great weight of the evidence, or it is quite clear that the jury has reached a seriously erroneous result.” *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1325, 1330 (Fed. Cir. 2010) (quoting *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1005 (9th Cir. 2004)).

3. Patent Infringement

Determining patent infringement is “a two-step process in which we first determine the correct claim scope, and then compare the properly construed claim to the accused device to determine whether all of the claim limitations are present either literally or by a substantial equivalent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1247-48 (Fed. Cir. 1998). “To prove literal infringement, the patentee must show that the accused device contains every limitation in the asserted claims.” *Leggett & Platt, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353, 1358 (Fed. Cir. 2002) (quoting *Mas-Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed. Cir. 1998)). “If even one limitation is missing or not met as claimed, there is no literal infringement.” *Mas-Hamilton*, 156 F.3d at 1211. The sale of a device that can be used to infringe does not constitute direct infringement, although it may create liability for induced infringement. *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 773-74 (Fed. Cir. 1993). “To infringe a method claim, a person must have practiced all steps of the claimed method.” *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005). “Whether an accused device or method infringes a claim either literally or under the doctrine of equivalents is a question of fact.” *Schoell v. Regal Marine Indus., Inc.*, 247 F.3d 1202, 1207 (Fed. Cir. 2001) (citing *Tanabe Seiyaku Co. v. U.S. Int’l Trade Comm’n*, 109 F.3d 726, 731 (Fed. Cir. 1997)).

4. Patent Invalidity

A patent is presumed valid. For this reason, “[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. § 282. Any facts underlying an invalidity determination for obviousness must be proven by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2242 (2011). However,

A general jury verdict of invalidity should be upheld if there was sufficient evidence to support any of the alternative theories of invalidity. “A failure of proof with respect to any single item of evidence does not justify a grant of either JMOL or a new trial; even if some of the proposed factual grounds . . . are not generally sufficient to support a verdict, that is not fatal, because the critical question is whether the evidence, taken as a whole, was sufficient to support the jury’s verdict.”

Cordance Corp. v. Amazon.com, Inc., 658 F.3d 1330, 1338-39 (Fed. Cir. 2011) (quoting *Northpoint Tech. v. MDS Am.*, 413 F.3d 1301, 1311 (Fed. Cir. 2005)).

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

5. Obviousness

The Patent Act provides:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103. “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966). The question of the motivation to combine prior art references may be addressed by a motion for summary judgment or one for a Judgment as a Matter of Law, in appropriate circumstances. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1239 (Fed. Cir. 2010) (citing cases).

In addition to these primary obviousness factors, “such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *Graham*, 383 U.S. at 17-18. *Id.* Obviousness is a legal conclusion based on these underlying findings of fact. *Motorola Mobility, LLC v. Int’l Trade Comm’n*, 737 F.3d 1345, 1348 (Fed. Cir. 2013).

6. Written Description

The “written description requirement [of 35 U.S.C. § 112] applies to all claims and requires that the specification objectively demonstrate that the applicant actually invented—was in possession of—the claimed subject matter.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1349 (Fed. Cir. 2010). “The purpose of this provision is to ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s contribution to the field of art as described in the patent specification.” *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345 (Fed. Cir. 2000).

Compliance with the written description requirement is a question of fact. *Ariad*, 598 F.3d at 1351. “[T]he test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.” *Id.* “[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.*

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

B. Application

1. The Jury's Verdict of Noninfringement

The jury found that NetAirus failed to carry its burden of proving infringement. Verdict Form, Dkt. 670. NetAirus contends that no reasonable jury could have found that use of the iPhone 4 did not perform each step of the asserted claims at least some of the time. JMOL Mot., Dkt. 705 at 2. NetAirus focuses on the “transmit power level” limitations of the ‘380 Patent, which require “the transmit power level of the handset when transmitting to the local area communication base unit [to be] lower than when transmitting to the external wide area network” (claim 3) and “the first wireless RF signal transmit power level transmitted to the local area base unit [to be] lower than the power level required to transmit the signal to the external wide area network” (claim 7). *Id.* (quoting ‘380 Patent at 13:62-65; ‘380 Patent Reexamination Certificate at 2:18-21). NetAirus contends that Apple’s technical expert, Rodriguez, testified on direct examination that the cellular transmit power level will be higher than the transmit power level for Wi-Fi “about seven and a half percent of the time.” *Id.* at 3 (citing Nov. 19, 2013 p.m. Tr. at 35:19–36:1). However, Rodriguez was careful to point out that the 7.5% figure came from an industry standard curve. He also testified that this publication did not refer specifically to a scenario where the cell phones are transmitting email. He then stated that a different type of analysis would have to be performed to evaluate that scenario. Nov. 19, 2013 p.m. Tr. at 34:7-35:9. Noellert, who is an engineering manager at Apple, and who testified as Apple’s corporate representative, stated that the iPhone’s Wi-Fi transmit level is set at 15 dBm, and that the iPhone’s cellular radio operates at a range of -50 to 24 dBm. *Id.* (citing Nov. 15, 2013 p.m. Tr. at 33:19-25, 35:15-22).

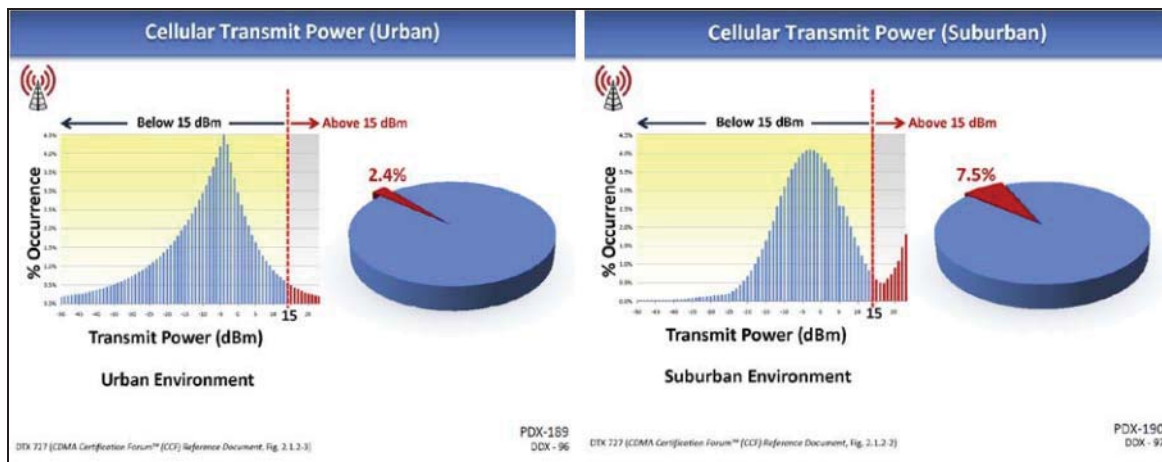
Consequently, because Apple calibrates the iPhone’s cellular radio to be capable of operating at the maximum transmit power level of 24 dBm, the iPhone’s maximum cellular power level is higher than the Wi-Fi transmit power level. *Id.* (citing Nov. 15, 2013 p.m. Tr. at 57:22-59:2). NetAirus contends that Apple’s own documents show that between 2.4% to 7.5% of iPhone 4 transmissions over a cellular network occur at higher than 15 dBm. From this NetAirus argues that those transmissions satisfy the “transmit power level” limitation of the asserted claims, yielding hundreds of millions infringing uses of the claimed method in a year. *Id.* at 4 (citing Nov. 15, 2013 p.m. Tr. at 57:25–60:5, 60:20–61:22; Culig Decl., Dkt. 706 ¶ 12, Ex. 11, DTX 727 at 0727-00029, Figs. 2.1.2-2, 2.1.2-3). To illustrate this argument to the jury, NetAirus displayed two probability curve charts from Apple’s CDMA Certification documents. NetAirus asserted that these curves showed that Apple’s iPhone 4 cellular transmissions crossed the fixed 15 dBm Wi-Fi level between 2.4% and 7.5% of the time, depending on the type of environment in which the phone was being used. Those charts are reproduced below:

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No. LA CV10-03257 JAK (Ex)
Title NetAirus Technologies, LLC v. Apple, Inc.

Date March 7, 2014



NetAirus argues that, because the asserted claims of the '380 Patent recite steps that are not bound by a specific time period, an act of infringement by Apple could take place over seconds, minutes, days, weeks, or even months. *Id.* at 5-6. Thus, NetAirus argues that it need not show that an email was sent over Wi-Fi at a time that the cellular transmission power was above 15 dBm. *Id.*

Substantial evidence supports the jury's verdict that NetAirus did not prove by a preponderance of the evidence that Apple performed all steps of the claimed methods. The testimony of NetAirus's expert, Blackburn, was inconsistent with the charts shown above and upon which NetAirus otherwise relies. Blackburn testified that, in all of his tests, the cellular transmit power was "**always** higher than Wi-Fi." Nov. 14, 2013 p.m. Tr. at 64:7-19 (emphasis added). The jury was free to view those test findings with suspicion, given that the other evidence introduced at trial showed that the cellular transmission power would rarely be higher than the Wi-Fi transmission power. Culig Decl. in Supp. of JMOL Mot., Dkt. 706 at ¶ 12, Ex. 11, DTX 727 at 0727-00029, Figs. 2.1.2-2, 2.1.2-3., Nov. 19, 2013 p.m. Tr. at 35:10-12. Further, Blackburn testified that the equipment he used could not accurately measure absolute transmission power levels. To be sure, he also testified that he believed it would do an adequate job of showing relative power levels. Nov. 14, 2013 p.m. Tr. at 59:11-21, 64:20-65:14.

Cross-examination revealed other potential issues with respect to the force of Blackburn's testimony. The testing notes he produced to support the results contained in his expert report were dated after the report was submitted, Nov. 15, 2013 p.m. Tr. at 15:1-16:15. Certain data in his expert report did not match the data recorded in his notes:

Q. Mr. Blackburn, do you have any explanation for why the range of data you report in paragraph 19 of your report doesn't match the test results that were dated a week later?
A. I'd have to go back through this because when I put this in here, I took -- when you do ranges, sometimes, as anybody would know, your meter might give you a false reading, and in the recording, I recorded everything, so I don't know. I mean, this is -- when I performed the calculation of the data to come up with the ranges, this is what I came up with."

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Id. at 17:20-18:3. And, NetAirus itself noted, at the outset of Blackburn's direct testimony, that there were certain inaccuracies in his resume, including with respect to whether he took certain classes at Stanford University, and that his IEEE membership had lapsed eight to ten years ago. Nov. 14, 2013 p.m. Tr. at 15:13-16:7.

On numerous occasions during Blackburn's cross-examination, Apple identified occasions in which there were apparent inconsistencies between his trial and deposition testimony. For example, Blackburn testified at trial that he had previously compared LAN and cell phone transmit power levels:

Q: And prior to this case, you have never had an occasion to compare L.A.N. transmit power levels with cell phone transmit power levels; correct?
A: There have been occasions when – I know from the specifications, the GSM and the UMTS and 802.11 documents, I have compared transmit levels – theoretical transmit levels that the phones have to operate at.

Nov. 15, 2013 a.m. Tr. at 54:17-54:24. Apple then introduced the following testimony that Blackburn provided at his deposition:

Q: But prior to this case you've never had an occasion to compare LAN transmit power levels with cell phone transmit power levels?
A: Not side by side, no.

Blackburn Dep. Nov. 3, 2011 at 166:25-167:3 (played at Nov. 15, 2013 a.m. Tr. at 56:4-56:12).

Blackburn stated at trial that using the method to connect to the internet would constitute infringement:

Q: If the user is surfing the web or Wi-Fi and not transmitting e-mail, they're not infringing the claim; right?
A: I believe one of the claims says that while connected to the internet – connected – essentially connected to the internet, which would be surfing the web.

Nov. 15, 2013 a.m. Tr. at 64:19-64:25. Apple then presented what was different testimony at his deposition:

Q: And if the user is surfing the web or Wi-Fi and not transmitting e-mail, they're not infringing a claim; right?
A: Right.

Blackburn Dep. Nov. 3, 2011 at 143:18-25 (played at Nov. 15, 2013 a.m. Tr. at 65:1-5).

Apple then asked Blackburn a series of questions regarding possible infringing activity. Contrary to his deposition responses that none of the proposed activities would be infringing, Blackburn responded at trial that, because such activities involved data, they infringed. Thus, Blackburn asserted at trial that accessing the Apple app store, downloading an iBook, using the Apple maps function, checking stock prices, or making voice calls over Wi-Fi would all constitute infringing activity. Apple presented contrary

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

testimony from his deposition on each of these points.

- *Trial testimony:*

Q: But if a user is accessing the app. store over Wi-Fi, they're not infringing the claim; correct? I'm right?

A: Let me just look here. Well, data – one form of data is e-mail. There's other forms of data which could be data over the internet.
Nov. 15, 2013 a.m. Tr. at 65:11-16.

- *Deposition testimony:*

Q: And if a user is accessing the AppStore over Wi-Fi, they're not infringing the claim; right?

A: Right.
Blackburn Dep. Nov. 3, 2011 at 143:22-25 (played at Nov. 15, 2013 a.m. Tr. at 65:17-22).

- *Trial testimony:*

Q: And if a user is downloading i-Books over Wi-Fi, they're not infringing the claim; right?

A: Again, that's the data.
Nov. 15, 2013 a.m. Tr. at 65:24-66:1.

- *Deposition testimony:*

Q: And if a user is downloading iBooks over Wi-Fi, they're not infringing the claim?

A: Right.
Blackburn Dep. Nov. 3, 2011 at 144:1-3 (played at Nov. 15, 2013 a.m. Tr. at 66:2-6).

- *Trial testimony:*

Q: If a user is using the maps function over Wi-Fi, they're not infringing; correct?

A: Same reason, data.

Q: Am I correct?

A: Data would be infringing, I believe, yes.
Nov. 15, 2013 a.m. Tr. at 66:8-12.

- *Deposition testimony:*

Q: And if a user is using the maps function over Wi-Fi, they're not infringing; correct?

A: Right.
Blackburn Dep. Nov. 3, 2011 at 144:4-6 (played at Nov. 15, 2013 a.m. Tr. at

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

66:13-18).

- *Trial testimony:*

Q: And if a user is checking stock prices over Wi-Fi, as long as they're not connected to e-mail, they're not infringing; correct?

A: That's data again.

Nov. 15, 2013 a.m. Tr. at 66:20-66:23.

- *Deposition testimony :*

Q: If a user is checking stock prices over Wi-Fi, they're not infringing; right?

A: Yeah, as long as these aren't connected somehow to an e-mail attachment or something.

Blackburn Dep. Nov. 3, 2011 at 144:7-10 (played at Nov. 15, 2013 a.m. Tr. at 66:24-67:4).

- *Trial testimony:*

Q: But you can make voice calls using cell without infringing right?

A: I believe that the element applies to both Wi-Fi and cellular.

Nov. 15, 2013 a.m. Tr. at 67:24-68:2.

- *Deposition testimony:*

Q: You can make voice calls using the cell without infringing; right?

A: Right.

Blackburn Dep. Nov. 3, 2011 at 145:7-9 (played at Nov. 15, 2013 a.m. Tr. at 68:3-8).

- *Trial testimony:*

Q: But if I have got my iPhone today and I'm sending text messages over well, I'm not infringing; right?

A: I don't remember what I said. I don't know.

Nov. 15, 2013 a.m. Tr. at 67:11-13.

- *Deposition testimony:*

Q: What about sending text messages? If they're sending text messages over cell they're not infringing; right?

A: Right.

Blackburn Dep. Nov. 3, 2011 at 145:3-6 (played at Nov. 15, 2013 a.m. Tr. at 67:14-19).

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Given the cross-examination at trial, the jury was entitled to give little weight to Blackburn's trial testimony. Even if his testimony were accepted, Blackburn testified that, when he observed the employee at the Apple store carrying out certain elements of the asserted claims at Blackburn's request, Blackburn did not measure the transmission power levels during those demonstrations. Nov. 14, 2013 p.m. Tr. at 25:9-31:24.

Furthermore, a reasonable jury could have found that NetAirus failed to connect adequately the undisputed Apple evidence -- testing documents, specifications, and general transmission power surveys -- with Apple's performance of the other steps of the asserted claims. Rodriguez explained that the power level probability curves introduced at trial showed only general patterns, were not specific to the iPhone 4 and did not refer specifically to a scenario where phones were transmitting email. He also testified that a different type of analysis would have to be performed to determine power levels during the sending of email. Nov. 19, 2013 p.m. Tr. at 35:4-9. And Apple's company witness, Noellert, confirmed that Apple's internal testing documents showed maximum transmit capability, but did not reflect power levels during the transmission of email. Nov. 15, 2013 p.m. Tr. at 45:17-25.

Apple argues that part of NetAirus's attack on the jury's noninfringement verdict is an untimely claim construction argument. This argument has force. Further, NetAirus's position is premised on an undue expansion of the meaning of the claims. Thus, if, as NetAirus argues, the method can be satisfied by isolated acts that occur months apart, separated by months of continuous noninfringing activity, then the method claims, which require the performance of all of the claimed steps, would be converted to an apparatus claim covering a device with the mere capability of performing the method. See *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005) ("A method or process consists of one or more operative steps, and, accordingly, it is well established that a patent for a method or process is not infringed unless all steps or stages of the claim process are utilized."). Based on the evidence introduced at trial, a reasonable jury could have found that NetAirus failed to show that Apple practiced the asserted claims.

2. NetAirus's Asserted Instructional Error re "Part-Time Infringement"

NetAirus argues that a new trial is warranted because the Court did not give the instruction it requested concerning "part-time infringement." New Trial Mot., Dkt. 708 at 8. NetAirus's proposed "part-time infringement" jury instruction was the following: "Imperfect practice of an invention does not avoid infringement. An accused product that sometimes, but not always, embodies or performs the claim limitations nonetheless infringes." Notice of Parties['] Disputed Jury Instructions, Dkt. 627 at 10.

Apple objected to this jury instruction as irrelevant, confusing, unduly prejudicial, and not based on the model instructions from either the Northern District of California or the Federal Circuit. Proposed Jury Instructions, Dkt. 515 at 39, Notice of Parties['] Disputed Jury Instructions, Dkt. 627 at 10-11. Further, Apple argued that the instruction was contrary to settled law that a method claim is infringed only by practicing the patented method. Notice of Parties['] Proposed Jury Instructions, Dkt. 627 at 10 (citing *Joy Techs, Inc. v. Flakt, Inc.*, 6 F.3d 770, 775 (Fed. Cir. 1993)). Finally, Apple stated that "any argument Apple makes regarding frequency of use is absolutely relevant to damages." *Id.* NetAirus responded to the objection by stating that the part-time infringement instruction was relevant and necessary because Apple had indicated that it would make arguments based on the frequency of use and/or performance

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

of the claimed methods accused of infringing. *Id.*

The Court declined to give the instruction proposed by NetAirus because it was “unnecessary and potentially confusing.” Minute Order re Disputed Jury Instructions and Disputed Verdict Form, Dkt. 638 at 2. “Imperfect practice of an invention” is not a concept that directly applies to the situation present here.¹ To be sure, that phrase was cited in *Bell Communications Research v. Vitalink Communications Corp.*, 55 F.3d 615, 622-23 (Fed. Cir. 1995), in support of the proposition that infringement of a method claim some of the time is infringement. And, the portion of the instruction that focuses on the accused product, rather than the infringer (“An accused product that sometimes, but not always, embodies or performs the claim limitations nonetheless infringes.”) would have been confusing in this case. Thus, NetAirus was pursuing both direct and indirect infringement theories, and the instruction implied that the jury should focus only on the product, and not Apple’s inducing conduct.

The instruction given by the Court provided that:

The asserted claims of the ‘380 patent are method claims; therefore, if performance of a method satisfied each of these requirements, then it is covered by the claim. . . . When a thing, in this case, a method, meets all of the requirements of a claim, the claim is said to cover that thing and that thing is said to fall within the scope of that claim. In other words, a claim covers a method or each of the claim elements or limitations present in the method.

Nov. 12, 2013 p.m. Tr. at 16:12-17:3. The Court does not believe that, as NetAirus argues, the instructions given “likely confused the jury into believing (incorrectly) that, unless infringement occurred each and every time an iPhone 4 was operated, the issue became one of induced infringement.” New Trial Mot., Dkt. 708 at 8. It is not clear why NetAirus’s instruction would have applied more to direct infringement than to indirect infringement, and nothing in the instructions suggested that infringement was only present if it were always present. Thus, no instruction implied that infrequent infringement was not a sufficient basis to find infringement. Further, NetAirus agreed to instruction 38, on direct infringement. Apple’s Notice re Jury Instructions, Dkt. 636.

NetAirus argues that Apple’s closing argument could have “fit precisely into the void left by the Court’s refusal to instruct the jury about ‘part time infringement.’” New Trial Mot., Dkt. 708 at 9. Apple argued in closing that:

And Mr. Noellert told you that, in typical operation of the Apple i-Phone 4, it goes from minus 13 to positive 5. He said that’s the range on that dBm scale, and that would be the typical range of the phone. Why is that testimony important? . . . It actually proves non-infringement. Mr. Noellert said the phone operates such that it’s in this section that I’ve highlighted here. And that red line is where the Wi-Fi signal is. According to Mr.

¹ The phrase “imperfect practice of an invention” is taken from *Paper Converting Mach. Co. v. Magna-Graphics Corp.*, 745 F.2d 11 (Fed. Cir. 1984), in which the accused infringer tested “significant, unpatented assemblies of elements” of the patented machine, which the court held “to be in essence testing the patented combination, and hence, infringement” and thus, “[t]hat the machine was not operated in its optimum mode is inconsequential: imperfect practice of an invention does not avoid infringement.” 745 F.2d at 20.

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Noellert's testimony, testimony that was uncontroverted in this case, testimony that nobody disputed, there's no infringement.

[Mr. Blackburn] actually corroborated the fact that there's no infringement based on Bill Noellert's testimony. He said, if the cell phone is operating such that the cell power is less than Wi-Fi power, it's not infringing. That would be correct. He said "yeah, that would be correct." So Mr. Noellert's testimony, which was uncontroverted in this case, confirms that there's no infringement. And Mr. Blackburn agrees with that relationship. If the power levels are like Mr. Noellert testified to, there no infringement. And there's not a stich of evidence in the record that Mr. Noellert is not correct. And, I mean, this is his job. He knows how these phones work. He told you that he's focused on that normal range because that's how he does optimization. That's why he tries to tinker with the electronics, make them work a little bit better during that normal power range. That testimony establishes non-infringement.

Nov. 20, 2013 Tr. at 71:1-72:14.

It is possible to understand Apple's argument two ways: (i) it had proven that infringement could occur, at most, a small percentage of the time, and that NetAirus did not prove infringement during that time, or (ii) that because infringement could occur, at most, a small percentage of the time, Apple did not infringe at all. If the argument conveyed the latter, the Court would expect NetAirus to have objected. However, NetAirus did not do so. Nor did NetAirus renew its call for a "part-time infringement" instruction in light of Apple's argument. Nor did NetAirus choose to address the point in its rebuttal to Apple's closing argument. Having failed to take any of these steps, NetAirus cannot presently argue with any force that this instruction should have been used.

The jury was instructed that argument of counsel was not evidence, and the Court instructed the jury on the law. The absence of NetAirus's requested instruction did not in any way limit NetAirus's ability to dispute Apple's position in rebuttal. Nor was NetAirus in any way precluded from timely raising an objection to Apple's closing argument and seeking its instruction or some other statement by the Court to the jury that would address the matters to which NetAirus objected. Given all of the evidence and argument presented at trial, the adequacy of the infringement instruction given to the jury, and the flaws in the instruction proposed by NetAirus, no new trial is warranted based on the asserted instructional error.

3. The Obviousness Verdict

The jury determined that the asserted claims were invalid as obvious. Verdict Form, Dkt. 670 at 2-3. NetAirus argues that Apple failed to prove that the prior art contained the "selective" communication of data limitation of claims 3 and 7: "using said handset unit to communicate, **selectively**, the first and second data to and from the local area communication base unit . . . transmitting a first wireless radio frequency (RF) signal comprising said data **selectively** to said local area base unit and to the external wide area network." JMOL Mot., Dkt. 705 at 8. NetAirus also argues that the obviousness testimony of Rodriguez, who appeared as Apple's expert, was conclusory and failed to address all limitations of the claims. *Id.* at 8-12.

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Apple presented two combinations of prior art, augmented by an additional reference, to address limitations present in the dependent claims. The first was the Nokia 9000 Communicator as described in a San Francisco Chronicle article published on March 14, 1996, combined with the GSM Standards. Opp'n. to JMOL Mot., Dkt. 713 at 7-8. Rodriguez explained that the Chronicle article described the Nokia 9000 cell phone, including that it was a handset that could send and receive e-mail and carry out PDA functions. Nov. 19, 2013 a.m. Trial Tr. at 53, Trial Ex. 1541. Rodriguez explained that the article disclosed that the Nokia 9000 operated on the GSM cellular network. *Id.* at 54-55. Rodriguez testified that GSM is an acronym for "Global System for Mobile," which at the time was a popular cellular network primarily used in Europe. *Id.* at 55.

Rodriguez then testified about Trial Exhibit 696, which was part of the GSM standard from February 1995. *Id.* at 55-56. Rodriguez explained that the GSM standard disclosed two types of base transceiver stations: a BTS and a micro BTS, and that the network utilized adaptive power control. *Id.* at 56-57. Rodriguez testified that the micro BTS met the local area communication base unit element in the claim and that the BTS, or normal cell tower, met the external wide area network element of the claims. He also testified that the handset communicates back and forth with both the micro BTS and the BTS. *Id.* at 57-63. Rodriguez also explained that, through the adaptive power control feature of the GSM network, phones would communicate either with the BTS or micro BTS depending on the distance involved, and that the power from the normal BTS was much higher than from the local micro BTS: up to 640 watts versus up to 0.25 watts. *Id.* at 63-65. Thus, Rodriguez opined, in the Nokia 9000 / GSM system, the transmission power used to transmit to the nearby local area communication base unit was often lower than that used for the more distant wide area network. *Id.*

Rodriguez also demonstrated how he believed that the Nokia 9000 / GSM system contained all the limitations recited by claims 1, 2, 3, and 7. Nov. 19, 2013 p.m. Trial Tr. at 9-15. Rodriguez then separately addressed dependent claims 9, 10, 11, and 12. As to claim 9, which depends from claim 7 and further requires that "the handset unit is configured to communicate with said external wide area network, wherein the external wide area network is substantially the Internet," he testified that the San Francisco Chronicle article disclosed that the Nokia 9000 can communicate with the internet. *Id.* at 15. As to claim 10, which depends from claim 7 and further requires that the "handset unit communicates with an earset unit," Rodriguez testified that United States Patent No. 5,504,812, issued April 2, 1996 to Vangarde (the "Vangarde Patent") was one of many examples that existed at the time showing how one could adapt a handheld device with a headset or earset unit in order to achieve hands-free operation. *Id.* at 16-17. As to claim 11, which depends from claim 7 and further requires that the "handset unit is a wireless cellular telephone unit," he explained that the San Francisco Chronicle article discloses that the Nokia 9000 was a cellular phone. *Id.* at 17. As to claim 12, which depends from claim 7 and further requires that the "handset unit is configured to send and receive e-mail via said external wide area network," he testified that the San Francisco Chronicle article described that element. *Id.* at 17-18.

As to motivation to combine, Rodriguez opined that a person of ordinary skill in the art would have thought to combine the references. Thus, the San Francisco Chronicle article about the Nokia 9000 cell phone explained that it was a GSM phone that operated on the GSM network; to obtain the details of how the phone functioned, one would look at the GSM standards document. *Id.* at 18-19. As to the

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Vangarde Patent, Rodriguez testified that a person engaged in the field at the time would have known to look for publications that taught how to adapt handsets for configuration with an earset or headset for hands-free operation. *Id.* at 19.

That testimony and documentary evidence constituted substantial evidence supporting the jury's verdict of invalidity due to obviousness. Reliance on press releases or articles that discuss the combination of two products is sufficient evidence to support the combination. *See Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1126-28 (Fed. Cir. 2000) (affirming a finding of obviousness in view of a combination of articles, whose interrelated teachings provided sufficient motivation for one skilled in the art of cigarette design to combine them). Because the Nokia 9000 was a GSM device, the only motivation needed to combine the references was the desire to understand how the Nokia 9000 would operate on the GSM network. Motivation to combine a handset with a headset and earset is found within the Vangarde Patent itself, which shows the combination of a headset and earset with a handset to achieve the benefits of hands-free operation.

The second combination of prior art presented by Rodriguez was a Byte Magazine article dated December 1994, which described the IBM Simon phone, combined with the GSM Standards, and as to claim 10, with the Vangarde Patent. Nov. 19, 2013 p.m. Trial Tr. at 19-29. Rodriguez's reasoning concerning the IBM combinations was similar to his opinions on the Nokia 9000 combinations, but the IBM Simon was not a GSM device. *Id.* Instead, it operated on an analog AMPS network. On that basis, NetAirus attacks the testimony as not explaining the motivation to combine the references or why the combination with the digital GSM network would produce predictable results. JMOL Mot., Dkt. 705 at 12.²

These attacks on the evidence fail. The desire to adapt a phone for use on a widely-used network to increase sales is an adequate motivation to combine. *See Wyers*, 616 F.3d at 1241-42 (finding that industry need spurred a motivation to combine) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) ("When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.")). That is not to say that the mechanics of adapting an AMPS handset to the GSM network would necessarily be a matter of common sense. However, the '380 Patent treats the problem at a higher level of generality: it solves no problems in the operation of either analog or digital cellular networks, or the adaptation of handsets for use with such networks. Instead, it assumes that it is within the ability of a person of ordinary skill in the art to configure a phone to operate on either network:

- "[t]his handset 14 may be capable of analog or digital cellular operation, including AMPS, TDMA, CDMA, PCS, CDPD, or equivalent types for communicating with wide area wireless communication networks." '380 Patent at 5:59-62.

² NetAirus attempted to have Blackburn testify that there would have been no motivation to combine the Simon phone with the GSM network because it was based on the analog AMPS system, and "to include the hardware, you know, to redesign the Simon for a digital network would be out of the scope, I think, of a person of ordinary skill in the art." Nov. 19, 2013 p.m. Trial Tr. at 147. After the jury heard that answer, the Court sustained Apple's objection to that testimony as outside the scope of Blackburn's report. *Id.*

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

- Wireless communications adapters or modems disclosed in the above embodiments may consist of analog or digital transmitter and receivers, having control circuitry for cellular AMPS, PCS, CDPD, and RF links to wide area communication networks . . . Communication techniques may include several types of digital multiplexing and command access schemes such as TDMA, CDMA, GSM, or a combination thereof. '380 Patent at 11:33-42.

In sum, Rodriguez's testimony was at a level of detail consistent with that in the patent's specification, which did not provide the details of the necessary circuitry or hardware, but rather treated those issues as well known to a person of ordinary skill in the art. *See Geo. M. Martin Co. v. Alliance Mach. Sys. Int'l LLC*, 618 F.3d 1294, 1302 (Fed. Cir. 2010) (holding irrelevant to the obviousness analysis a patentee's argument based on testimony that "from an engineering standpoint," one could simply take the prior art device and change it to match the configuration of the claims, because the claims did not recite engineering details, and to the extent that engineering obstacles did stand in the way, another prior art device demonstrated that such obstacles could be overcome). Here, the '380 Patent itself treats the various networks as interchangeable without making any contribution to that interchangeability. It also assumes that the implementation of the '380 Patent's invention could be readily implemented by a person of ordinary skill in the art on any of those networks, or a combination of those networks. Therefore, substantial evidence supports the jury's verdict that the asserted claims of the '380 Patent are invalid as obvious.

4. The Court's Modification of Its Construction of "E-Mail" During Trial

At the October 21, 2013 Final Pretrial Conference and Hearing on Motions in Limine, the Court observed that NetAirus's Motion in Limine No. 1, to Preclude Apple from Presenting Evidence of Apple's Proposed Claim Constructions and Evidence Based on Those Claim Constructions, reflected a dispute concerning the scope of the claim term "e-mail." Minutes, Dkt. 523 (citing Pls.' MIL No. 1, Dkt. 99). The Court noted that "[i]n the absence of agreement, the parties will need to brief the issue." *Id.* at 2. The parties both filed briefs addressing the construction of the term. Dkts. 550, 570. After considering the parties' submission, the Court adopted NetAirus's proposed construction of e-mail:

Communication between a first user at one domain to a second user at the same or different domain (e.g., user1@apple.com would send email to user2@netairus.com). "E-mail" does not include the following types of messaging or protocols: SMS, GSM, COMS, X.400, or facsimile/fax note.

Minute Order Construing E-mail and Local Area Communication Base Unit, Dkt. 614 at 2-4.

In adopting NetAirus's proposed construction, the Court relied on NetAirus's position in the reexamination, in which Blackburn submitted a declaration stating that "[t]here is no basis to construe these terms to include anything other than computer Email. The SMS, COMS, fax note, and facsimile messaging described [in a prior art reference] are not computer Email and no one skilled in the art would refer[] to these different messaging techniques as computer Email." DTX 853-00357, Pl.'s Claim Construction Brief re "Email," Dkt. 570 at 3. NetAirus's proposed construction added GSM to that list. The Court adopted NetAirus's construction, reasoning that "NetAirus's arguments during the

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

reexamination constituted a disclaimer of claim scope.” Dkt. 614 at 4. Thus, the Court informed the parties that it understood that NetAirus’s proposed construction to be coextensive in scope with its disclaimer during the reexamination of messaging types that were not “@” domain email. The Court also stated that it understood GSM to refer to GSM text messaging, consistent with the other non-domain based messaging protocols on the list. Indeed, NetAirus represented to the Court that its proposed construction “tracks Mr. Blackburn’s explanation to the U.S. Patent and Trademark Office.” Dkt. 570 at 4. NetAirus did not inform the Court that it in fact sought a narrower construction.

The Court’s pretrial construction stated that various types of “messaging or protocols” were not email, but nowhere said that communication in the domain-to-domain format was not an email if it merely passed through a GSM conduit. Indeed, the construction did not address that possibility, because it was not the Court’s understanding that the construction was intended to do so. If NetAirus really meant to exclude emails sent over a GSM network from the construction, it needed to inform the Court of that position, particularly because the application to the prior art was quite concrete at that point in time, so NetAirus could have easily been clear about its intended meaning. Thus, the timing of the clarification was a result of NetAirus’s failure to clearly present its position earlier.

Rodriguez explained that the term “GSM text messaging” is sometimes used to refer to SMS text messaging, which is the standard protocol for text messaging over the GSM network. Dkt. 713-7, Nov. 19, 2013 p.m. Tr. at 9. He further explained, consistent with the Court’s understanding of its construction and with what the Court believed was the mutual understanding of the parties, that an email sent over the GSM network is not the same thing as a GSM text message, because the former uses domain addressing, and the latter uses the SMS protocol. *Id.*

Finally, this is a distinction without a difference in the context of the obviousness analysis presented to the jury. Apple’s theory was not that the Nokia 9000 anticipated the claims pursuant to 35 U.S.C. § 102. Instead, it was that in light of the Nokia 9000 article and GSM standards documents, the claims were invalid under 35 U.S.C. § 103, which provides that:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Thus, even if an email sent over the GSM network were technically outside of the Court’s construction, there is no evidence that it would matter for an obviousness analysis, because although not “identically disclosed,” none of the evidence introduced at trial suggests that a person of ordinary skill in the art would disregard domain-to-domain email sent over the GSM network when considering how a handset could send email wirelessly. NetAirus has shown no error in the Court’s clarification of the construction of “email.”

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

5. The Written Description Invalidity Verdict

NetAirus argues that it was error to ignore the original claims filed with the '380 Patent application when Apple asserted that the patent failed to comply with the written description requirement. JMOL Mot., Dkt. 705 at 17. Apple argues that the original claims should not be considered in evaluating compliance with the written description requirement, and that the jury's verdict would stand even if they were considered. Opp'n to JMOL Mot., Dkt. 713 at 17-18, 23.

"[T]he written description requirement applies to all claims and requires that the specification objectively demonstrate that the applicant actually invented—was in possession of—the claimed subject matter." *Ariad*, 598 F.3d at 1349.

Furthermore, while it is true that original claims are part of the original specification, *In re Gardner*, 480 F.2d 879, 879 (CCPA 1973), that truism fails to address the question whether original claim language necessarily discloses the subject matter that it claims. . . . We disagree that this is always the case. Although many original claims will satisfy the written description requirement, certain claims may not. For example, a generic claim may define the boundaries of a vast genus of chemical compounds, and yet the question may still remain whether the specification, including original claim language, demonstrates that the applicant has invented species sufficient to support a claim to a genus.

Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1349 (Fed. Cir. 2010).

Apple argues that, for a later-added claim to be described by original claims, it must be of similar scope and wording. It then argues that the original claim here is of a very different scope, and uses very different wording, than the later added claims. Opp'n to JMOL Mot., Dkt. 713 at 18 (citing *In re Koller*, 613 F.2d at 823-24). NetAirus disagrees. Reply in Supp. of JMOL Mot., Dkt. 714 at 5 (citing *Hyatt vs. Boone*, 146 F.3d 1348, *Northern Telecom vs. Datapoint*, 908 F.2d 981, and *Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.*, 635 F.3d 1373, 1380 (Fed. Cir. 2011)). Because a resolution of this question is not material to the disposition of the Motions, the Court assumes without deciding that, as NetAirus argues, the original claims provide written description support for amended claims to the same extent as the rest of the specification provided with the application.

The Court gave Apple's proposed written description instruction. It was based on a Northern District of California model instruction. In selecting this instruction, the Court declined to use NetAirus's proposed instruction, which is based on a model instruction from the Federal Circuit Bar Association. See Proposed Jury Instructions, Dkt. 515-1 at 54-57, Nov. 20, 2013 Tr. at 30:11-31:5. NetAirus objected to the use of the Northern District of California instruction. November 14, 2013 Notice of Parties["] Disputed Jury Instructions, Dkt. 627 at 1. NetAirus argues that in selecting the instruction that Apple proposed, the Court omitted the following "critical instructions":

. . . In the patent application process, the applicant may keep the originally filed claims, or change the claims between the time the patent application is first filed and the time a patent is issued. . . . These changes may narrow or broaden the scope of the claims. . . .

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

The written description requirement may be satisfied by any combination of the words, structures, figures, diagrams, formulas, etc. contained in the patent application.

New Trial Mot., Dkt. 708 at 12 (quoting NetAirus's proposed instruction, Dkt. 515-1 at 54-55). NetAirus argues that Apple used the absence of this language to suggest that changes in claim scope during prosecution were improper. It also contends that Apple argued that only the verbatim text of the specification, not the figures or original claims, could satisfy the written description requirement. *Id.* at 12, 14. NetAirus disputes Apple's arguments concerning changes to the claims during prosecution on the grounds that "it is not improper for an applicant to broaden his claims during prosecution in order to encompass a competitor's products, as long as the disclosure supports the broadened claims." *Id.* at 14 (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.* 358 F.3d 898, 909 n.2 (Fed. Cir. 2004)). However, an examination of the statements now criticized by NetAirus -- ones to which it did not object at trial -- demonstrates that they properly focused on the lack of support for the asserted claims in the application as filed. NetAirus cites the following statements by Apple's counsel:

So let's look at the time line. We talked about this time line a few times in the case. But, in 1997, Mr. Ditzik files his specification. And he files a set of claims along with the spec. And they match. Mr. Ditzik claims the relay concept in his original claims. That's what was there. That's proper. That's the way the system is supposed to work.

After that, a bunch things [sic] come out in the press, handheld devices that can send e-mail, handheld devices that are PDA's, handheld devices that can access the Internet.

* * *

Mr. Ditzik, after seeing all of these concepts in the press, starts to change his claims. And he changes them eight different times in the process. And in 2002, he comes up with new claims that now claim e-mail in a handset and PDA's in a handset.

* * *

So let's look at what the prosecution history shows. In the prosecution history, it's clear that there were claims in 1997. They didn't say anything about a handset that could do e-mail or a handset that could be a PDA. If Mr. Ditzik had invented a handset that could send e-mail in 1997, he would have put it in his claims. He would have claimed it. It would have been a big deal. It would have been a big concept for him. He would have put it in his claims, and he didn't.

* * *

Looking at Mr. Ditzik's original claims side-by-side to his new claims, they're almost completely different. Mr. Ditzik was claiming things that he didn't disclose in his original specification. He was claiming things that he had read about after the fact. In our patent system, you can't do that. That's not fair. It's not playing fair with everybody else.

Nov. 20, 2013 Tr. at 78:9-19, 79:1-5, 79:25-80:9, 81:14-20.

The written description requirement is "not a question of whether one skilled in the art might be able to

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

construct the patentee's device from the teachings of the disclosure Rather, it is a question whether the application necessarily discloses that particular device." *Martin v. Mayer*, 823 F.2d 500, 505 (Fed. Cir. 1987), superseded on other grounds as stated in *Kubota v. Shibuya*, 999 F.2d 518 (Fed. Cir. 1993). Apple argued that NetAirus did not point to "a sentence" in the specification that supported a handset that was a PDA or a handset that could send email. However, if there were support elsewhere in the application -- in the drawings or in the original claims -- NetAirus could have responded simply by showing the jury where the drawings or original claims supported those elements. Instead, NetAirus attempted to establish written description support by having the inventor, Ditzik, testify as to the number of times the patent referenced the terms "PDA" and "email." Nov. 13, 2013 a.m. Tr. at 61:5-10, 63:6-64:5. NetAirus provided no basis to support the combination of those elements with a handset from anywhere in the patent application. And, after a thorough examination of all the relevant evidence at trial, it appears that the original application does not provide written description support for a handset that is a PDA or a handset that can send email. Taken in context, Apple's argument addressed the correct legal standard.

NetAirus argues that the jury notes show that Apple's tactics confused the jury. New Trial Mot., Dkt. 708 at 15. But, that the jury asked several questions on a topic about which the Federal Circuit has debated and written at length, shows that they were diligent, not that they were confused.

NetAirus also complains that the Court's answer to one of the questions from the jury did not acknowledge that the original claims are also part of the written description of the patent. New Trial Mot., Dkt. 708 at 16. The jury asked this question: "Does the term 'written description' asked in Question 4 of the jury verdict, refer to the words within the section termed 'Detailed Description' on p.1306-00012 of Patent '380, OR to the words within the claims of the same patent?" Jury Question No. 2, Dkt. 678. After conferring with, and obtaining the approval of, both parties as to the precise language of an appropriate response (Nov. 21, 2013 Tr. at 11:13-25), the Court answered the question as follows:

The term "written description" as used in Question 4 of the verdict form means what is contained in the portion of the '380 patent, Exhibit 1306, starting on its first page (1306-00001) through and including column 13, line 46 on its 17th page (1306-00017). This includes all text and figures on these pages. It does not include the claims which begin on column 13, line 47 on page 17.

Nov. 21, 2013 Tr. at 11:16-22.

After that stipulated response was given, NetAirus requested an additional instruction that the written description requirement can be satisfied by claims filed with the original application. The Court declined to give an additional instruction, stating that "in the course of the trial this wasn't advanced to the jury as an argument So at this point if we were to tell the jury as part of your task in determining the written description, you should go back to the original patent and look at those claims, they don't have the context in which to do that." Nov. 21, 2013 Tr. at 14:4-13.³ A district court must formulate a set of jury

³ NetAirus did not argue original claim 7 to the jury or highlight it in trial testimony. Further, handset transmission to both the local area communications base unit and external wide area network(s) was disclosed in Figure 7 of

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No. LA CV10-03257 JAK (Ex)
Title NetAirus Technologies, LLC v. Apple, Inc.

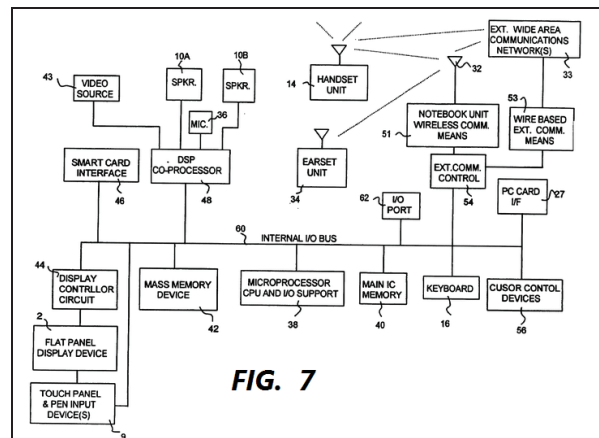
Date March 7, 2014

instructions that fairly and accurately states the law, covers the issues presented, and is not misleading. *Duran v. City of Maywood*, 221 F.3d 1127, 1130 (9th Cir. 2000). NetAirus's proposed instruction did not cover an "issue presented" because it advanced a theory not presented through evidence or during argument. "A party is entitled to an instruction about his or her theory of the case if it is supported by law and has foundation in the evidence." *Jones v. Williams*, 297 F.3d 930, 934 (9th Cir. 2002). This was not NetAirus's theory of the case.

Indeed, NetAirus argues that Apple told the jury to examine the original claims of the '380 Patent, but for the wrong reason -- to see how different they were from the issued claims. Reply in Supp. of JMOL Mot., Dkt. 714 at 7. NetAirus argues that "[i]f the jury had been instructed to examine the original claims in determining the written description, it would have found that the original claims disclosed" various elements that exist in the issued claims. *Id.* at 7. NetAirus was free to make this precise argument to the jury, but it did not do so. The proposal to add this instruction during jury deliberations simply came too late.

Furthermore, two fully sufficient independent factual grounds for the jury's finding are unrelated to the issue of the original claims. Thus, there was substantial evidence to support a jury verdict on the bases that the '380 Patent lacked the PDA/handset and handset/email limitations.

the '380 Patent (reproduced below). NetAirus did not present Figure 7 in its rebuttal. There was no dispute that Figure 7 could be considered for purposes of evaluating compliance with the written description requirement. There was also no dispute that it was in the portion of the patent to which the Court directed the parties in connection with crafting the response to the jury's question to which both then stipulated. Nov. 21, 2013 Tr. at 11:13-25. To the extent the issue was that Apple argued that Ditzik only invented a relay device, and not one where the handset could communicate both with the local area communication base unit and the external wide area network, the jury was instructed to consider the specification of the '380 Patent, including Figure 7, reproduced here, which shows the handset unit communicating with the notebook unit (local area communications base unit) and external wide area communication network(s):



**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

NetAirus misconstrues certain of the Court's statements when it argues that the Court previously said that the prosecution history reflects that the Patent Office recognized that the '380 Patent includes an embodiment describing a handset functioning as a PDA. *Id.* at 23-24. Rather, in the course of construing the "configured to a PDA" phrase, the Court observed that NetAirus submitted a "simplified" figure to the PTO during prosecution that showed the PDA and handset in a single device. The Court also observed that the PTO relied on that "simplified" drawing. However, the Court also stated that it:

would be more accurately called an 'altered' drawing. It shows that the handset and PDA components are interchangeable and perhaps combined, but it is far from clear that the specification supports that view. The applicant submitted the simplified drawing on August 29, 2004, some seven years after the original application. Thus, the applicant had the benefit of hindsight concerning how the market and technology had developed in the interim.

Order Re Claim Construction, Dkt. 302 at 2, n.1. In short, the Court's statements to which NetAirus refers were consistent with the position that Apple presented at trial.

In denying Apple's request to move for summary judgment on the issue of written description, the Court held that a number of circumstances warranted a full factual hearing, including that the PTO had considered the issue, which might, pursuant to *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238 (2011), render Apple's evidence less persuasive to the finder of fact. Order Denying Defendant's Motion to Clarify Court's Order Re Claim Construction and For Leave to File Summary Judgment Motion of Invalidity Due to Lack of Written Description, Dkt. 311 at 2-3. However, as the Court stated at the time, the deference given to the PTO's decision is fully accounted for by the presumption of validity that attaches to all issued patents. *Id.* Courts "treat the issued patent as having a presumption of validity that must be overcome by clear and convincing evidence." However, they do not defer to the examiner's findings; there is no additional burden "to overcome PTO findings in district court infringement proceedings" *Novo Nordisk A/S v. Caraco Pharm.*, 719 F.3d 1346, 1357 (Fed. Cir. 2013). Nor does "the presence or absence of PTO findings on particular issues affect[] the basic presumption of validity." *Id.* Because the Court did not embrace the PTO's determination concerning this disputed issue of fact, it cannot be used to challenge the jury's verdict. The jury found the PTO's determination was outweighed by clear and convincing evidence; substantial evidence supports that finding.

Blackburn admitted at trial that, during his deposition, which occurred after Blackburn had read the '380 Patent many times, he was unable to point to anything in the specification that supported sending email from the handset. Nov. 19, 2013 p.m. Tr. at 153:19-154:1. At trial, Blackburn testified that a portion of Figure 8 of the patent provided written description support for sending email with the handset. However, he was then impeached with his deposition testimony that the portion of Figure 8 at issue pointed to the functionality of the base station, not the handset. *Id.* at 154-155, Blackburn Nov. 3, 2011 Dep. at 153:14-20.

NetAirus argues that the testimony of Ditzik showed compliance with the written description requirement. Nov. 13, 2013 a.m. Tr. at 71:3-72:5. But Ditzik only testified that the various components of the claimed invention were mentioned in the patent. Nov. 13, 2013 a.m. Tr. at 63:24-64:5. NetAirus

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	March 7, 2014
Title	NetAirus Technologies, LLC v. Apple, Inc.		

summarized Ditzik's testimony with the following question and answer:

Q: Is there any doubt in your mind, based on your preparation of the patent, your patent, that your patent refers to email, PDA, LAN and WAN network communication.

A: Yes. It disclosed all those.

Nov. 13, 2013 a.m. Tr. at 67:2-5. This testimony does not show that the written description requirement was satisfied. To the contrary, it supports Apple's position. Ditzik makes no claim to have invented email, PDA, LAN or WAN network communication. His claims cover a specific combination of those concepts as elements of a method of handset unit communication. His testimony does not show that he possessed the concept of the claimed combination. Where the invention consists of the combination of various prior art elements, which are patentable, by pointing to those unassembled elements in the original application a patentee does not "convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). "[T]he specification must contain an equivalent description of the claimed subject matter. A description which renders obvious the invention for which an earlier filing date is sought is not sufficient." *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

Also unpersuasive is NetAirus's claim that the testimony of Rodriguez concerning the lack of written description was conclusory. For example, Rodriguez opined that he could not find in the specification a handset that can send and receive email. Nov. 19, 2013 a.m. Tr. at 34. In support of that conclusion, Rodriguez explained that he searched the specification and found only three places that mentioned email. *Id.* at 35. He then explained each of those instances to the jury, showed those portions of the specification to the jury, and explained his opinion that, each time email was mentioned, the patent was describing the e-mail function of the computer system / base unit, not the handset. *Id.* at 34-37.

Rodriguez also explained that PDAs were discussed in the "Description of Prior Art" section of the specification. But he explained that this discussion focused on what was already in the market and not on the claimed invention. Nov. 19, 2013 a.m. Tr. at 43:2-14. Rodriguez then pointed out that the "Background of the Invention" section only discussed a notebook-like computer structure that could perform PDA functions, but did not mention a handset that could do the same. Nov. 19, 2013 a.m. Tr. at 43:21-44:11. He also testified concerning the file history of the '380 Patent, pointing to statements from patent examiners who, at various points in the prosecution history, observed that, contrary to the PTO's final determination, there was insufficient support in the application for a handset unit as a PDA device. Nov. 19, 2013 a.m. Tr. at 45:15-47:17. Finally, Rodriguez discussed the revised drawing, which is reproduced below, that was submitted by the applicant just prior to the issuance of the '380 Patent. Nov. 19, 2013 a.m. Tr. at 48:7-22.

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No. LA CV10-03257 JAK (Ex)

Date March 7, 2014

Title NetAirus Technologies, LLC v. Apple, Inc.

IV. CONCLUSION

For the foregoing reasons, NetAirus's Motion for New Trial and Renewed Motion for Judgment as a Matter of Law are **DENIED**.

IT IS SO ORDERED.

Initials of Preparer _____ : _____
kti

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	November 18, 2013
Title	NetAirus Technologies, LLC v. Apple, Inc.		

Present: The Honorable JOHN A. KRONSTADT, UNITED STATES DISTRICT JUDGE

Andrea Keifer

Not Reported

Deputy Clerk

Court Reporter / Recorder

Attorneys Present for Plaintiffs:

Attorneys Present for Defendants:

Not Present

Not Present

Proceedings: **(IN CHAMBERS) ORDER RE DISPUTED JURY INSTRUCTIONS AND
DISPUTED VERDICT FORM (Dkts. 627, 630, 636)**

I. INTRODUCTION

Trial is underway. Presently before the Court are the Notice of Parties' Disputed Jury Instructions dated November 14, 2013, Dkt. 627, a further Notice Re Jury Instructions dated November 17, 2013, Dkt. 636, and the Notice Re Disputed Verdict Form dated November 14, 2013, Dkt. 630. In this Order, the Court resolves the remaining jury instruction and verdict form disputes.

II. DISPUTED JURY INSTRUCTIONS

A. No. 37 [A] – Infringement Burden of Proof

The Court will use the form instruction, *i.e.*, without the addition suggested by NetAirus in the November 14, 2013 Notice of Parties' Disputed Jury Instructions, Dkt. 627 at 3.

B. No. 39 [N] – Intent Not Relevant to [Direct] Infringement

The Court will not use this instruction. The parties' agreed instruction No. 38 re direct infringement, as updated in the Notice re Jury Instructions dated November 17, 2013, Dkt. 636, adequately addresses the lack of an intent requirement for direct infringement.

C. No. 40 [A] – Infringement Burden of Proof

The Court will use the form instruction, as completed in Exhibit 1 hereto, including the addition agreed to by the parties of: "In determining whether Apple knew that the induced acts would be infringing, you may consider whether Apple had a good faith belief that the '380 patent is invalid."

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	LA CV10-03257 JAK (Ex)	Date	November 18, 2013
Title	NetAirus Technologies, LLC v. Apple, Inc.		

D. No. 41 [N] – Part-Time Infringement

The Court will not use this instruction. It is unnecessary and potentially confusing.

E. No. 42 [A] – Invalidity Burden of Proof

The Court will use the agreed portion of the submitted instruction, and will add a second paragraph addressing the consideration of prior art by the United States Patent and Trademark Office, as shown in Exhibit 1 hereto.

F. No. 43 [A] – Obviousness

The Court will use the form with the language concerning secondary considerations that was deleted in Apple's proposal, i.e., the underlined material at pages 16-17 of the November 14, 2013 Notice of Parties' Disputed Jury Instructions, Dkt. 627, shall be included. The Court will not use the additional language proposed by Apple at page 20 of Dkt. 627.

G. No. 48 [A] – Definition of a Reasonable Royalty

The Court will use the instruction as it appears in Exhibit 1 hereto. There has been insufficient evidence presented with which the jury could determine a royalty base for an ongoing royalty.

H. No. 49 [previously agreed] – Reasonable Royalty – Relevant Factors

The Court will use the previously agreed instruction, which accurately reflects the considerations relevant to the jury's determination of an appropriate royalty.

I. No. 50 [A] – Calculating Damages in Cases of Induced Infringement

The Court will use Apple's submitted instruction.

III. DISPUTED VERDICT FORM

The Court will use the Verdict Form as it appears in Exhibit 2 hereto.

//
//

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No. LA CV10-03257 JAK (Ex)

Date November 18, 2013

Title NetAirus Technologies, LLC v. Apple, Inc.

IV. CONCLUSION

The remaining jury instruction and verdict form disputes are resolved as set forth above.

IT IS SO ORDERED.

Initials of Preparer _____ : _____
ak _____



US007103380B1

(12) **United States Patent**
Ditzik

(10) **Patent No.:** **US 7,103,380 B1**
(45) **Date of Patent:** **Sep. 5, 2006**

(54) **WIRELESS HANDSET COMMUNICATION SYSTEM**

(76) Inventor: **Richard J. Ditzik**, 307 Surrey Dr., Bonita, CA (US) 91902

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 567 days.

(21) Appl. No.: **09/391,966**

(22) Filed: **Sep. 8, 1999**

Related U.S. Application Data

(62) Division of application No. 08/832,933, filed on Apr. 4, 1997, now Pat. No. 5,983,073.

(51) **Int. Cl.**
H04B 7/15 (2006.01)

(52) **U.S. Cl.** **455/556.2; 455/11.1; 455/557;**
455/569.1

(58) **Field of Classification Search** 455/566,
455/556, 550, 557, 11.1, 569, 403, 422, 462,
455/463, 465, 568, 15, 16, 41, 3.05
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,008,927 A	4/1991	Weiss et al.
5,189,632 A	2/1993	Paajanen et al.
5,196,993 A	3/1993	Herron et al.
5,200,913 A	4/1993	Hawkins et al.
5,276,680 A	1/1994	Messenger
5,327,486 A	7/1994	Wolff et al.
5,351,270 A *	9/1994	Graham et al. 455/11.1
5,440,449 A	8/1995	Scheer
5,446,783 A *	8/1995	May 455/557
5,487,069 A	1/1996	O'Sullivan
5,490,284 A	2/1996	Itoh et al.
5,533,027 A *	7/1996	Akerberg et al. 370/280
5,553,312 A *	9/1996	Gatney et al. 455/11.1
5,570,389 A	10/1996	Rossi

5,592,491 A	1/1997	Dinkins
5,628,055 A *	5/1997	Stein 455/90
5,634,080 A	5/1997	Kikinis et al.
5,659,890 A	8/1997	Hidaka
5,675,629 A	10/1997	Raffel et al.
5,699,367 A *	12/1997	Haartsen 714/749
5,701,515 A	12/1997	Grader
5,796,727 A *	8/1998	Harrison et al. 455/557
5,809,115 A *	9/1998	Inkinen 455/557
5,809,415 A *	9/1998	Rossmann 455/422.1
5,884,190 A *	3/1999	Lintula et al. 455/557
5,896,369 A *	4/1999	Warsta et al. 455/557
5,907,815 A *	5/1999	Grimm et al. 455/556
5,920,826 A *	7/1999	Metso et al. 455/556

(Continued)

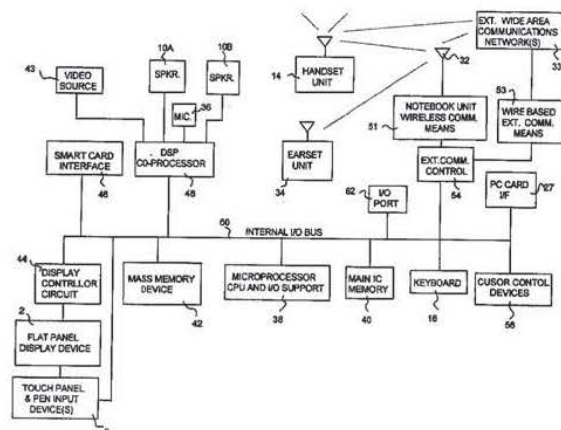
Primary Examiner—Sonny Trinh

Assistant Examiner—Sam Bhattacharya

(57) **ABSTRACT**

A small light weight modular microcomputer based computer and communications systems, designed for both portability and desktop uses. The systems make use of a relative large flat panel display device assembly (2), an expandable hinge device (10), battery power source (9), keyboard assembly (16), and wireless communications devices (32, 51). The systems are capable of bi-directional realtime communications of voice, audio, text, graphics and video data. Both wire-based or wireless communications methods and devices are implemented. Wireless communications devices may include one or more telephone-like handsets (14) and/or earset (34). The wireless communication devices may include one or more antennae (32). Systems can be configured in a portable arrangement similar to conventional notebook computers, but can be quickly and easily disassembled and re-assembled for office desktop uses. Systems may consist of a base computer unit (100) comprising wireless communication devices may act as a relay station relaying voice and other data between the handset or earset and external wide area communications networks. The system may be capable of performing, personal digital assistant (PDA), cellular telephone, conventional notebook computer, desktop computer functions.

14 Claims, 8 Drawing Sheets



US 7,103,380 B1

Page 2

U.S. PATENT DOCUMENTS

U.S. PATENT DOCUMENTS				6,049,796 A	*	4/2000	Siitonen et al.	707/3
5,930,719	A	*	7/1999	Babitch et al.		8/2000	Puthuff 455/557	
5,953,322	A	*	9/1999	Kimball 370/328	6,112,103 A		Foladare et al.	455/556
5,983,073	A	*	11/1999	Ditzik 455/556	6,134,454 A	*	10/2000	
5,991,644	A	*	11/1999	OGawa 455/566	6,289,213 B1	*	9/2001	Flint et al. 455/420
				* cited by examiner				

* cited by examiner

U.S. Patent

Sep. 5, 2006

Sheet 1 of 8

US 7,103,380 B1

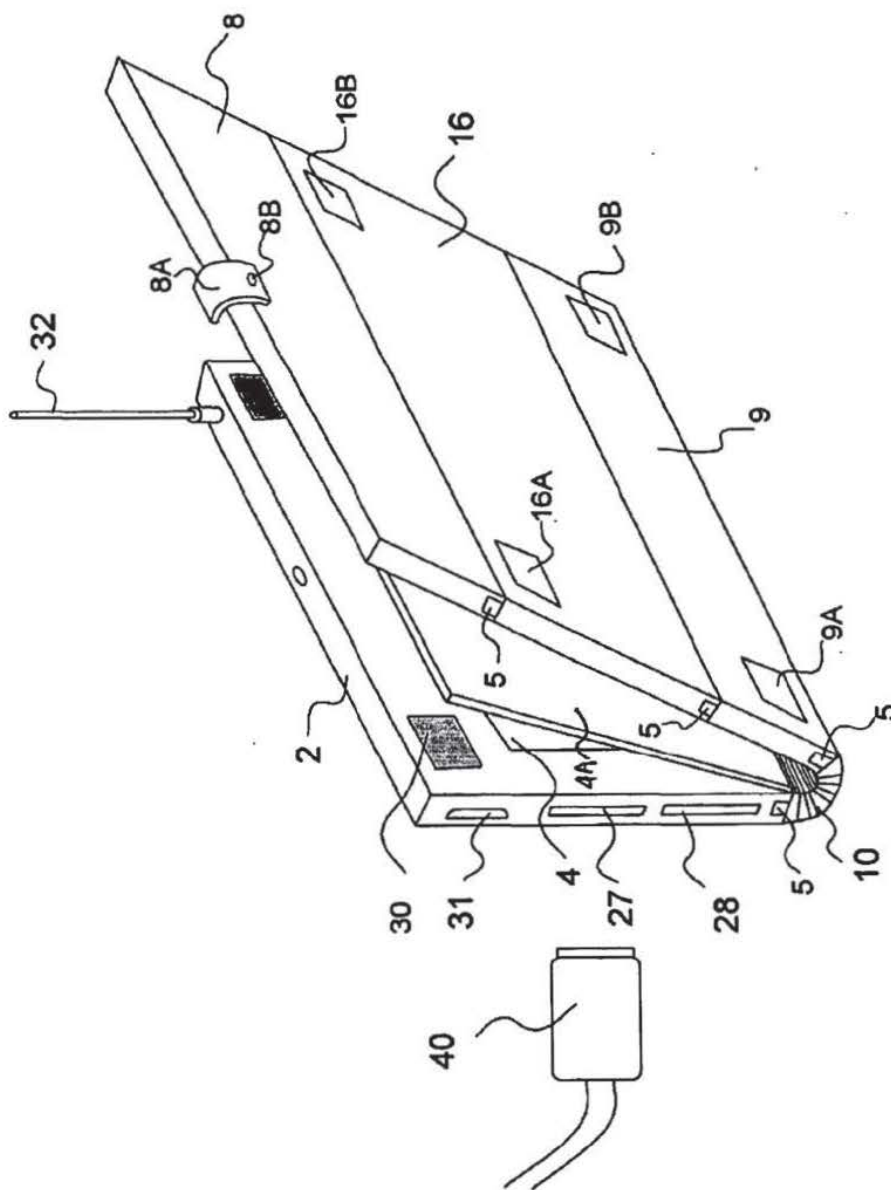


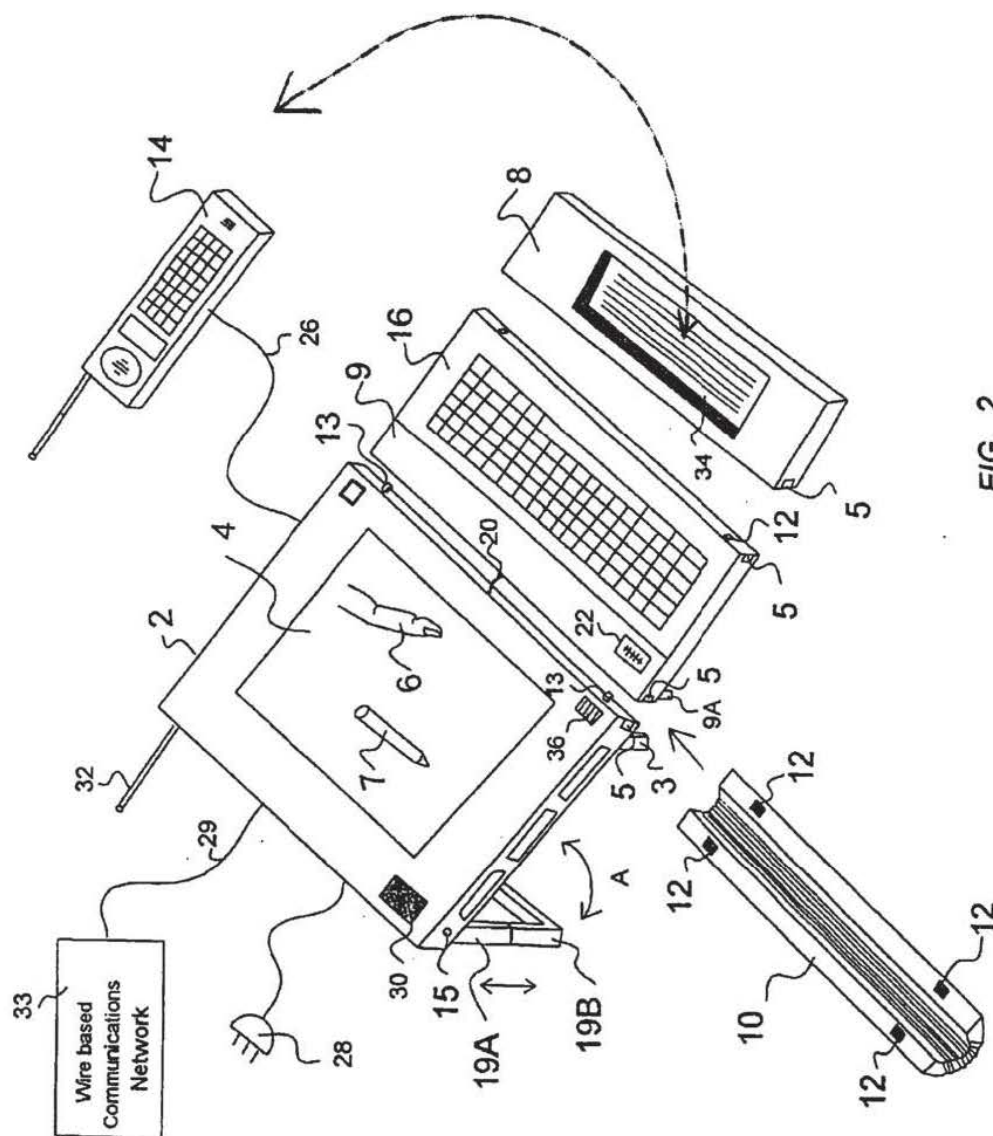
FIGURE 1

U.S. Patent

Sep. 5, 2006

Sheet 2 of 8

US 7,103,380 B1



A00229

U.S. Patent

Sep. 5, 2006

Sheet 3 of 8

US 7,103,380 B1

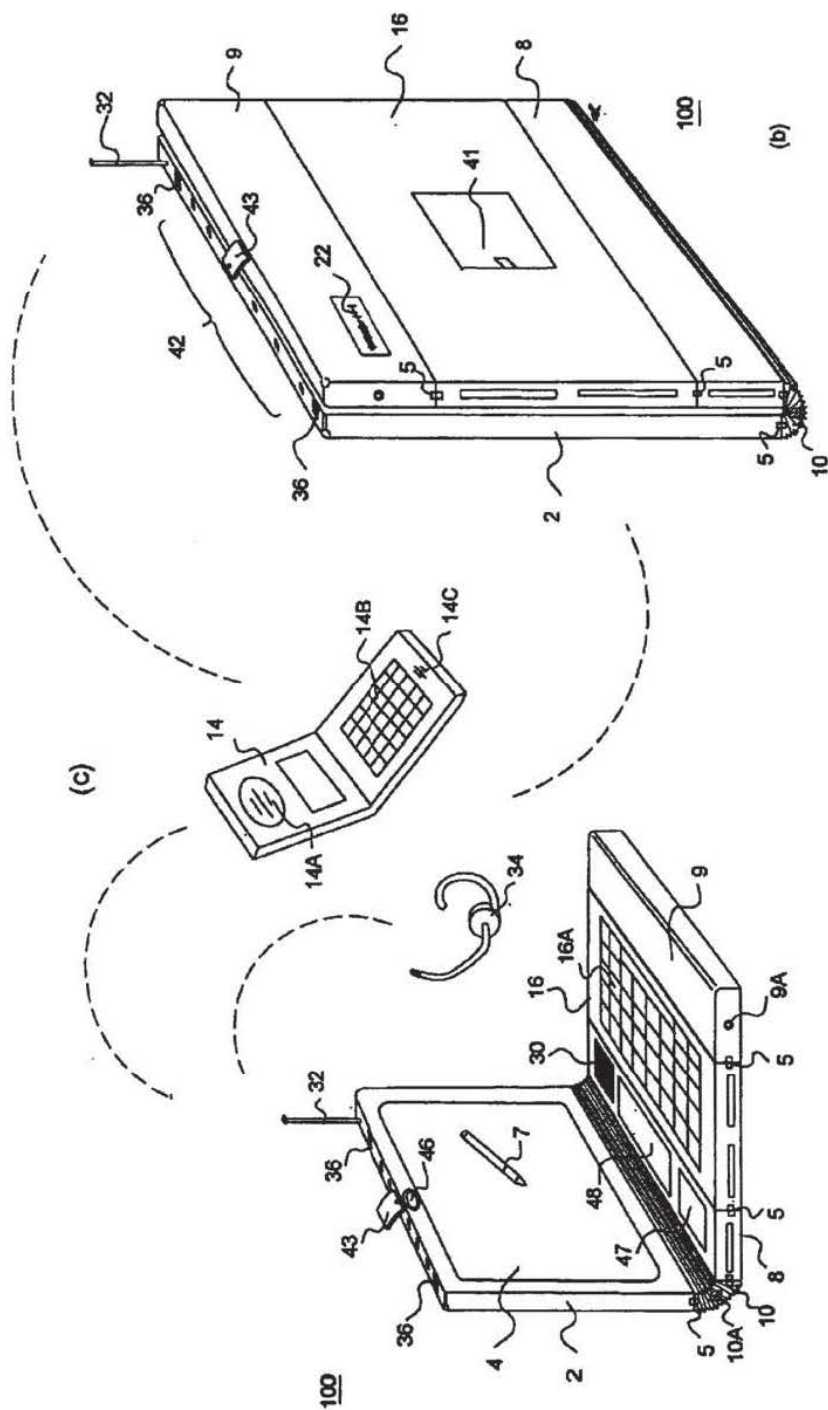


Figure 3

A00230

U.S. Patent

Sep. 5, 2006

Sheet 4 of 8

US 7,103,380 B1

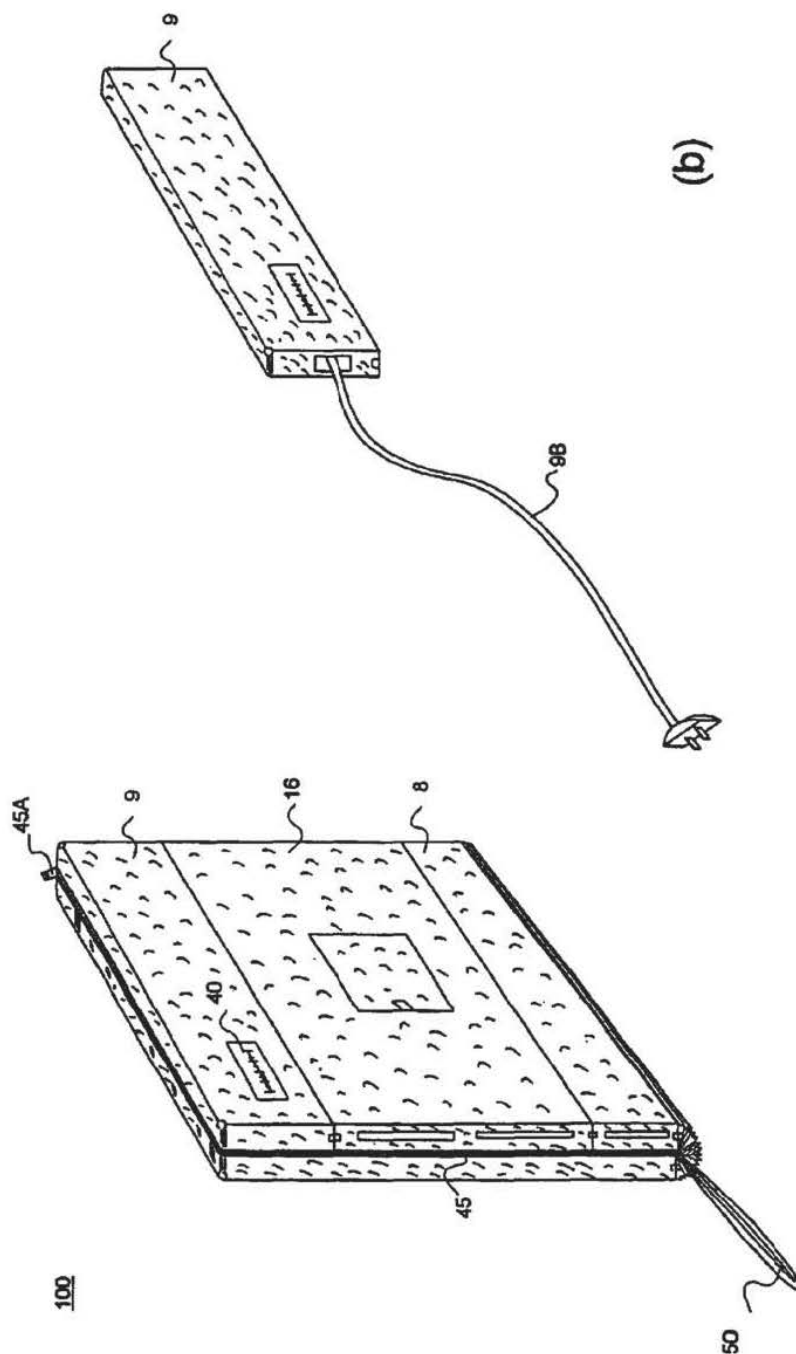


FIGURE 4

U.S. Patent

Sep. 5, 2006

Sheet 7 of 8

US 7,103,380 B1

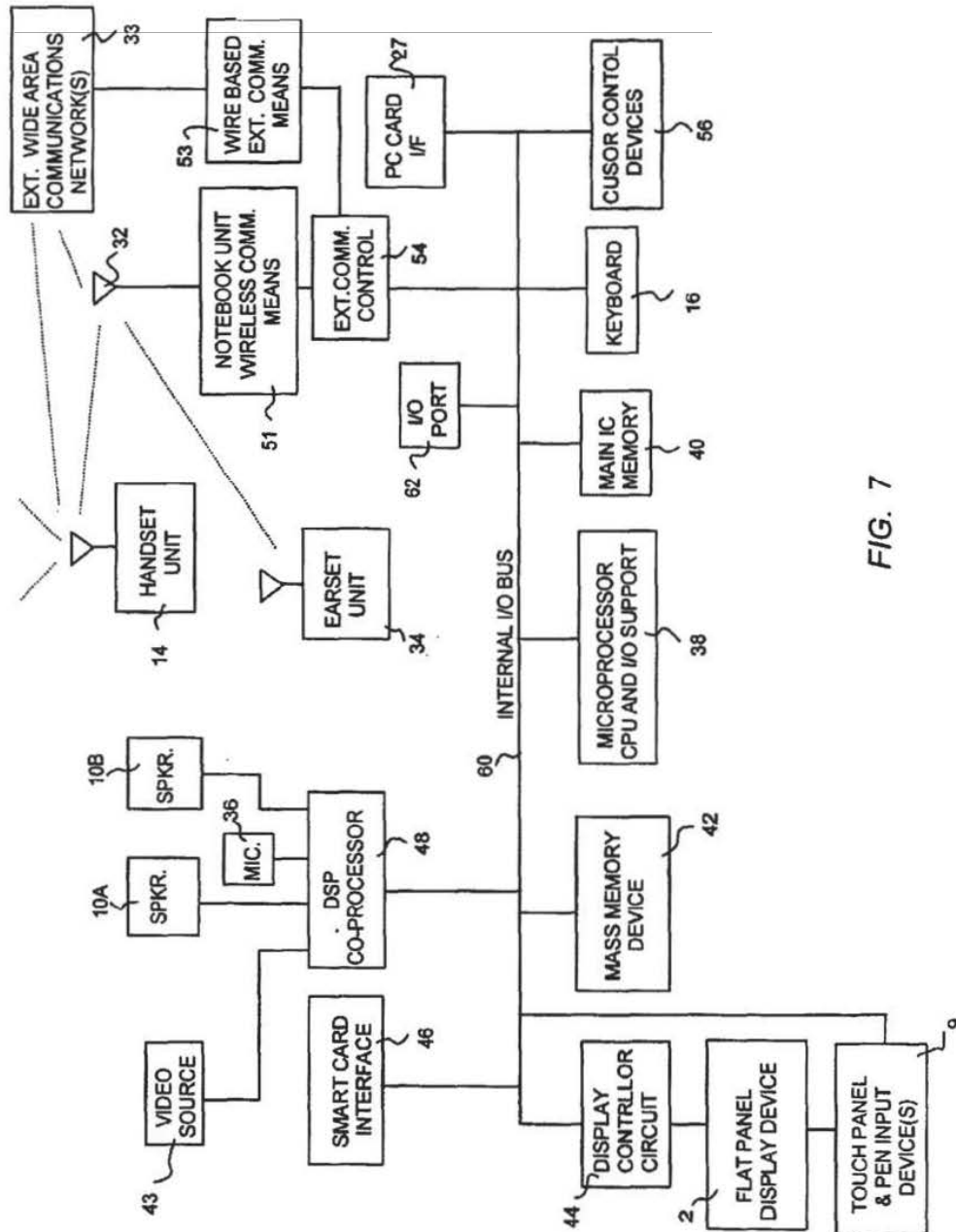


FIG. 7

A00234

U.S. Patent

Sep. 5, 2006

Sheet 8 of 8

US 7,103,380 B1

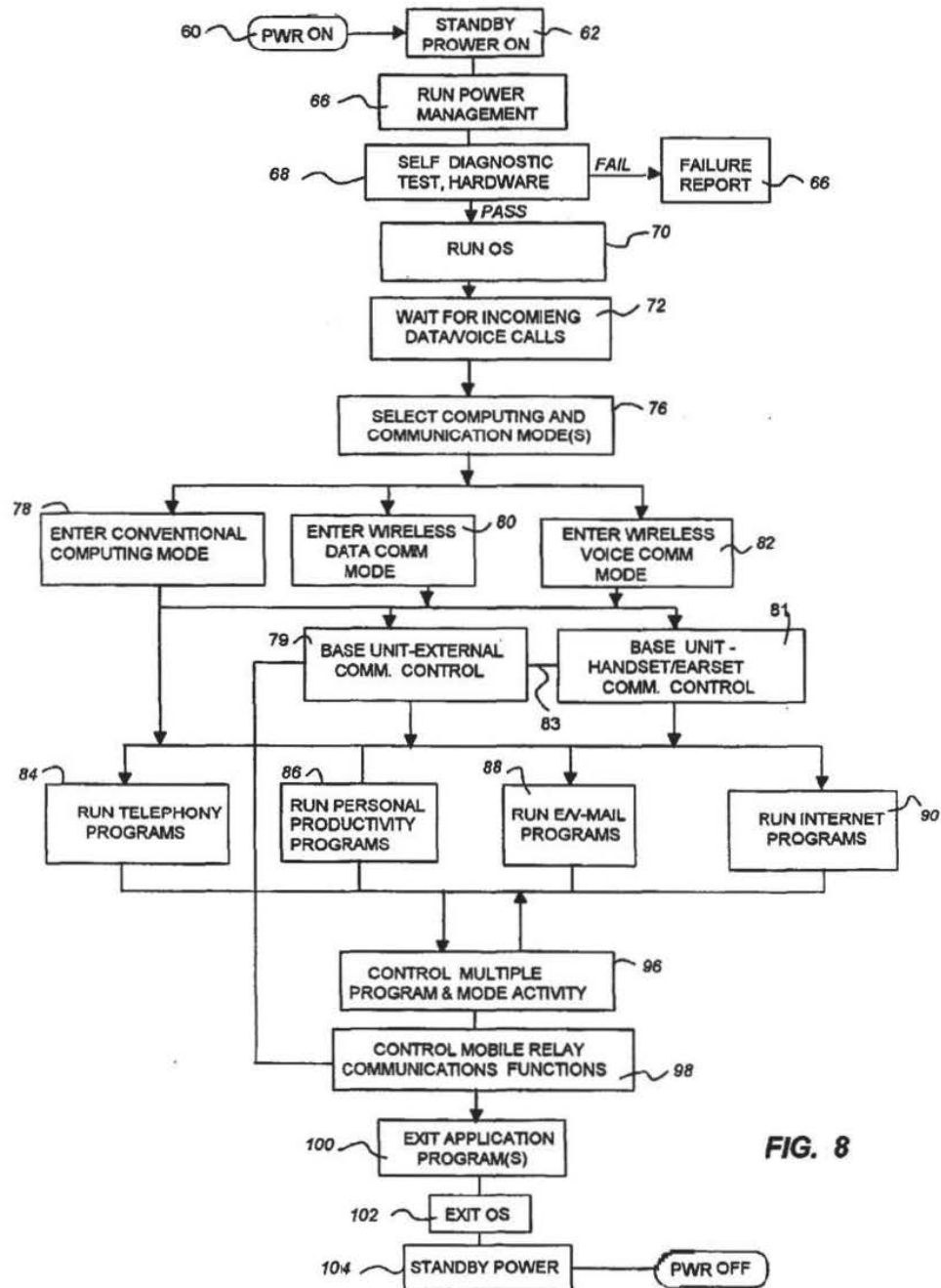


FIG. 8

A00235

US 7,103,380 B1

1

**WIRELESS HANDSET COMMUNICATION
SYSTEM**

This application is a divisional of application No. 08/832, 933, filed Apr. 4, 1997, which issued as U.S. Pat. No. 5,983,073, whose entire application is hereby incorporated by reference.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

This invention relates to portable personal computer systems with external communication means, which can be used by an individual in both desktop and mobile environments. The computer system involves a relatively large color flat panel display, conventional microcomputer system, and a plurality of human interface means. In particular, it relates to a computer unit, having light weight thin notebook-like computer structure that is capable of performing personal digital assistants (PDA) like functions and wireless external communications of voice, text, graphic and image data.

2. Description of Prior Art

There are several shortcomings with prior art notebook computers, PDAs and wireless telephone units. Notebook computers have a relatively large flat panel display device, a full alphanumeric keyboard and battery power. PDAs are small handheld units with a small LCD display, small key pad and touch pen. PDAs are designed to be placed in one's pocket or purse for maximum portability. A problem arises when customers desire large high resolution color display for both portable and desktop applications. To use a computer system for both portable and desktop uses, the customer must purchase multiple systems. The cost of color flat panels are still too expensive for most customers to buy two display monitors, one display for desktop and one for the portable applications. Many customers require functionality of a desktop computer, notebook computer and PDA, but it is much too expensive to purchase multiple CPUs, displays, and keyboards.

U.S. Pat. No. 5,189,632 of Paajanen et al disclosed a handheld computer unit with an antenna and wireless RF communication capability, small flat panel display and a keyboard, in a partial clam shell type structure. However, they do not teach expandable hinge means, base station for handset relay functions, or cover latching function. U.S. Pat. No. 5,327,486 of Wolff et al teach a conventional laptop computer with antenna and RF communications to a radio network and local exchange telephone network. However, they fail to teach expandable hinge means, edge hinge means, handset means or base station relay functions. U.S. Pat. No. 5,459,458 of Richardson et al teach a virtual pager and data terminal system. However, they do not teach notebook like computers, base unit station or personal/PDA computing. U.S. Pat. No. 5,008,927 of Weiss et al teach a computer and telephone system with a display screen on a conventional telephone structure keyboard unit. However they fail to teach notebook like structure, wireless communication or handset relay functions. U.S. Pat. No. 5,196,993 of Herron et al teach a laptop computer with a removable flat panel display with built-in support feet for desktop support. However, they fail to teach expandable hinge means, exterior communications functions, cover latching functions or computer display assembly. U.S. Pat. No. 5,200,913 of Hawkins et al teach a laptop computer with flat panel display and pen input means. However, they fail to teach expandable hinge means, edge mounted hinge or latching functions.

Wireless handheld computer devices, such as cellular and Personal Communication System (PCS) telephones, have

2

limited display capabilities. Prior art wireless computer units have display screens that are small (1.5–2.5" diameter), and they lack interactive capabilities to be successful for text, graphic and video applications. Some prior art notebook and laptop computers have integrated wireless communication means, but they are too large and bulky to be successful for in mobile uses. Prior art wireless devices do a poor job of providing voice, data and video communication functions. Typical wireless computer systems have display screens that are too small and have limited computing power. Prior art laptop and notebook computers are too heavy to carry for long periods. Inventions herein solve these problems by embodying a unique relatively thin notebook-like computer system that is capable of: being: (1) opened like a notebook, (2) quickly disassembled and re-assembled, (3) used for handset/earset communications relay operations and (4) used in a wide variety of computing, collaboration, communications and conferencing applications.

Inventions described herein are based on several Disclosure Documents submitted to the U.S. Patent and Trademark Office, including Document No.s 353691, 363753, 368165, and 377365. Inventions herein solve several prior art shortcomings, resulting in new modular integrated computer systems. The inventions as described below can be quickly configured to desktop, notebook, wireless and/or PDA embodiments. Thus, the user will be able to purchase a single computer system and pay much less money than conventional systems.

SUMMARY OF THE INVENTION

An object of this invention is to provide a modular multiple function display-computer system, where one can use the same relatively high resolution color flat panel display in both a desktop and mobile environments.

Another object of this invention is to provide means to reduce the cost to the customer of owning several expensive computer systems, by combining in one system the capability of performing both office desktop and portable/mobile computing and communications applications. Thus the invention herein saves the user the expense of purchasing separate computer systems for desktop uses, notebook computer uses, PCS uses and PDA uses.

Still another object of this invention involves means to quickly configure a modular notebook or PDA-like computer system into a plurality of system configurations for personal computer and wide area communication operations.

Another object of this invention is to provide for a relatively thin and light weight computer unit to be carried under one's arm in a notebook-like fashion, yet have sufficient computing power to execute a wide range of conventional computer and communications applications.

Still another object of this invention is to provide for bi-directional communication of voice, audio, text, graphics, image and/or video data to wide area communications networks where one or more users may communicate with other users with appropriate apparatus. The communication may realtime or store forward type communications.

Another object of this Invention involves hardware and program software to control cellular or PCS communications, combined with a light weight mobile notebook or PDA like unit. The unit or system would act as a computing platform and base communications relay station. The system or unit may then relay voice and data to/from a handset unit or earset unit, where the base unit relays this voice and data information to/from a wide area communication network.

A00236

US 7,103,380 B1

3

Still another object of this invention involves means for quick disconnection or disassembly and subsequent connection or assembly of key component of the system, such as battery power unit, communication adapters (modems) and/or wireless telephone units.

A still further object of this invention is to use the same display-computer system assembly, comprising of relatively large high resolution color flat display panel and a powerful CPU with large memory, etc., and combining them in a modular fashion with a thin keyboard, battery power source, modem, and wireless communications means.

Another objective of this invention is to provide means for integrated telephony functions on a portable computing platform, with powerful microprocessors running Windows operating systems for a wide range of computing and communication functions.

A still further objective of this invention is to provide for full Internet access on a wireless mobile platform, where the user can access the world wide web and execute most of the available Internet browser functions and plug-ins. The computer system would be capable of performing most of the Internet data access, download, upload and conferencing functions.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a perspective view of a portable computer with a notebook clamshell-like structure.

FIG. 2 shows a perspective view of a modular portable computer system in desktop configuration.

FIG. 3(a) shows a notebook like portable computer in an open state.

FIG. 3(b) shows the notebook like computer in a closed state.

FIG. 3(c) shows a handset telephone unit and earset unit.

FIG. 4(a) shows a notebook or portable computer with a protective covering material.

FIG. 4(b) shows an electrical power source unit.

FIG. 5 shows a PDA like unit with a roughly transparent cover half.

FIG. 6(a) shows a notebook or PDA in a partial open state.

FIG. 6(b) shows the notebook or PDA in a reversed open state.

FIG. 7 shows block diagram of the computer system and associated elements.

FIGS. 8a and 8B shows a flow diagram of the computer system programs and operations.

DETAILED DESCRIPTION

FIG. 1 shows a computer system, to be operated by a person or user, where the unit has a conventional notebook clamshell-like structure. The computer system as used herein can also be referred to as a portable computer system, computer-display unit or base unit, and shall also include the terms: personal computer, notebook computer, sub-notebook computer or Personal Digital Assistant (PDA). The computer system as disclosed herein typically comprises of a flat panel display assembly 2, which includes a display panel and screen 4 and other components described below. An expandable hinge means 10 connects the flat panel display assembly and cover assembly (8, 9 and 16). Expandable hinge means 10 may be embodied many ways including using flexible material that is corrugated, having its grooves running parallel to the edge of the notebook structure. Cover assembly may consist of two or more sections, such as a first

4

cover section 8, second cover section 9, and a keyboard section 16. One or more of the cover sections may be quickly disassembled from each other by the user. To avoid accidental disassembly, means may be embodied where the user must simultaneously press two push buttons 5, for example one on each side of the structure, in order to disconnect the sections. The portable portable computer system may also have an inside protective sheet member 4A attached to the inside the fold of the computer system. FIG. 1 shows a partially open notebook-like structure, but it may be closed all the way shut and secured, by a securing strap means BA. This strap means may be secured to the other side of the display assembly 2 by Velcro like strips, for temporary securing and un-securing, with one's fingers. One purpose of this foldable embodiment is to provide the computer user with a handy portable notebook computer that: (1) when closed, one can easily carry, cradled in one hand under one's arm, and (2) easily opened for access to the computer indicators and controls.

The flat panel display assembly 2 may be a monochrome or color liquid crystal displays (LCD), such as those manufactured by Sharp Electronics, NEC Electronics, Toshiba Corporation or others. The display panels screen sizes may be 10 to 14 inches or more in diameter. The display pixel arrays may be 640 by 480 (VGA), 800 by 600 (SVGA), or 1024 by 768 (XGA). Color depth should be six bits, and the response time should be 45 to 50 milliseconds ($t_{90}+t_{off}$). Brightness of the screen should 70 Cd/m² and contrast ratio be at least 100:1, where 250:1 is preferred.

LCD panels from Sharp Electronics may be used in the embodiments. Applicable LCD Models include LQ11DSO1, LQ12DSO1, LQ12DXO1 and LQ12X12. These panels have screen sizes of either 11.3 or 12.1 inches measure along their diagonal. Each panel is capable of a color depth of 6 bits/sub-pixel, a response time of 80 ms, brightness of 70-150 cd/m² and a contrast ratio of 100:1. LCD panels from NEC may also be used, such as NL10276BC24-04, NL8060BC31-02, NL8060BC31-01, and NL8060BC29-01. These panels are capable of 6 bit color depth, 50 ms response time, 70 cd/m² brightness and 150:1 contrast. Toshiba panels that may embodied include: LTM11C016, LTM12C236, or LTM12C25S, which are capable of 50 ms response, 70 cd/m² brightness and 100:1 contrast. Manufacturers' references and manuals for each are hereby incorporated by reference.

Several I/O slots and/or connectors may be embodied at one or more edges of the flat panel display assembly 2. FIG. 1 shows access slots to a floppy disk 28, external communication means 27, printer connector 31. Other external connection means may be embodied. Several connector means may be embodied, including auxiliary video connector, COM ports, and/or mouse/game ports. PCMCIA PC card 40 may be included for adding fax/modem, network interface (wire or wireless) external communications and/or added memory. An integrated built-in transmitter receiver and a retractable antenna 32 may be embodied, for example to the flat panel display assembly 2. The antenna and associated RF transceiver may be used for wireless communications to/from an external communication network. Many of the well-known notebook computer or personal computer I/O devices may be embodied.

An important feature of this embodiment is the dimensions of the computer-display unit. It may be made conveniently larger than a 8.5×11 inch sheet of paper, so that one can place one or more sheets of paper (or other relatively thin flat objects) inside the closed clamshell like notebook structure in a folding or latching fashion. The user can safely

A00237

US 7,103,380 B1

5

carry papers from location to location without folding or wrinkling them. Thus the unit can act as a carrying device as well as a notebook computer. The outside surfaces and edges of notebook computer may be covered with leather, vinyl or other type of soft material, for easy of hand carrying and surface protection. Other parts may be embodied including foldable short legs 9A and 9B, keyboard resting pads 16A and 16B, built-in audio speaker(s) 30.

FIG. 2 shows the portable computer with several parts detached or disassembled. This embodiment may be used in desktop computer system environments. The flat panel display assembly 2 may be placed at an inclined angle, with foldable leg support means 19A and 19B. The leg support means may fold relatively flush to the backside of the assembly 2 (motion range A) when not in use, via a simple hinge 15. Vertical portions 19A and 19B may slide in and out, in a telescoping type arrangement, to allow wide range inclination angles. A pair of short legs 3 may be placed near the front of assembly 2 that may also fold relatively flush with the back of the assembly. Means may be included to place the screen at a vertical orientation. A pen or stylus input means may be associated with the display screen 4. The pen or stylus means may include finger input (touch panel) means, where one can write or point to area on the display screen. The expandable hinge means 10 may be removed from the assembly 2 and from the cover section 9 by a quick disconnect or disassembly means 5. Alternatively, the hinge means may be fixed to parts 2 and 9. The hinge means may be made of a relatively flexible material, such as leather and vinyl. It may be corrugated as shown in the figure so it can bend easily and expand as required. The hinge may have a number of attachment slots 12 for the quick dis-attachment or disconnection from hook mechanisms 13. FIG. 2 shows the flexible hinge means 10 removed from the other assemblies.

Cover section 9 may contain a battery power unit containing one or more batteries and power circuit elements. The battery power unit may be embodied with several types of batteries, including Lithium-ion or NiCd batteries. The power unit may be a self contained battery package, having an easy to read charge indicator 22 that indicates the state of the battery's electrical charge. Because all batteries have a limited useful charge life, the package may be easily and quickly disconnected from the keyboard section 16 and replaced with another battery package. Spare battery packages and other spare parts could be carried in a separate traveling case (not shown). The keyboard section 16 may have a full size QWERTY keyboard with movable tactile keys. An electrical cable 20 may connect the keyboard to the computer-display assembly 2. Although short cable is shown, it may be a long cable or a flexible cable, so that the keyboard may be moved about if desired. Alternatively, a wireless electromagnetic link may be embodied such as infrared (IR) or RF links, which would replace electrical cables 20 and 26. The cover section 8 may contain a wireless handset 14, such as a cellular telephone transceiver. The handset may have retractable antenna, small speaker, keypad, built-in microphone and a battery source. This handset 14 may be capable of analog or digital cellular operation, including AMPS, TDMA, CDMA, PCS, CDPD, or equivalent types for communicating with wide area wireless communication networks. The wireless unit 14 can be easily removed from a cutout or recess area 35 in the cover section 8. The recess area is made slightly larger than the outside dimensions of the handset 14, so it can fit inside the recess with a relatively snug fit. It is important the handset be easily and quickly removed and replaced in the

6

base unit. Alternatively, cover section 8 consist of the handset itself, so that a separate cover section with recess would not be required.

The portable computer system's flexible hinge and the cover sections should be made relatively thin so that when the two halves are folded (rotated) closed, it will not be too thick or heavy to carry with one hand. As shown in FIG. 1, legs 3, 5, 19A and 19B may be folded roughly flush with outside surfaces of the unit. The number cover sections are not limited to three. The cellular handset is shown in FIG. 2 may be connected to the computer system by an optional electrical cable 26. A RF transceiver in the wireless telephone would serve as the transceiver for the computer as well. This embodiment might be desirable to reduce the overall cost of the system. However, a wireless RF transceiver and modem may be located in the flat display panel assembly 2 for voice or data communications. An antenna may be embodied on the display assembly 2, with a retractable antenna 32. The display assembly may include the computer system located within the assembly housing. The advantage of this later embodiment is that the telephone 14 and computer system could be operated independently.

The portable computer system may also have means for connection to a non-battery power source, as shown in FIG. 2, via a standard power line cord and plug 28. The system may also have means for connection to an external wire based wide area communications network 33, via cable 29. The wire based wide area network may include one or more telephone networks, cable TV networks and/or computer LAN/WANs. Telephone networks may include POTS, ISDN, ATM or other equivalent types. Several computer interface connection means may be embodied, for example interface slots/connectors as shown (27, 31, and 38). These interfaces might include R/S 232, USB, IEEE 1394, PCMCIA, or other computer I/O (serial or parallel) connections. Useful connections may include a bus extender connection, so that the notebook computer can be interfaced to another more powerful computer. For portability reasons, it is desirable that the modem or digital terminal adapter be built into the computer system unit. Some means for software loading should be included such as a floppy disk or smart card. Internal mass memory of the computer system could include ROM, flash memory, or other memory means. Means for accepting PCMCIA cards, ROM cards or other types of memory card may be implemented. Preferably, the system may be embodied with a very small light weight and low power mini hard disk. One or more IR communications interfaces may also be implemented.

Other capabilities such as FAX send/receive, speech recognition, voice processing voice mail, telephony, and E-mail functions may be implemented in the computer system. A built-in microphone 36 and speaker 30 may be embodied to support speech input/output and multimedia functions. Preferably the display should be capable of full color with a wide viewing angle. If the display is back lit, the user should be allowed to switch the backlight "on", "off" and to a multiplicity of levels in between. The operating system of the notebook/PDA should be a GUI type such as Windows™ 3.1/95, Windows CE™, MagicCap or another suitable GUI based computer operating system. The system can be designed to support wide range of communication connectivity and software compatibility.

FIGS. 3A and 3B show another embodiment of the invention having a base unit or notebook computer system 100, a handset unit 14 and a earset 34. This embodiment shows a relatively thin flat display panel assembly 2 having a display screen 4. The system may also include a pen and/or

A00238

US 7,103,380 B1

7

finger input means 7. The base unit has an expandable hinge means 10 physically connecting the display assembly to the other half of the base computer unit. The other half can be comprised of several sub-assemblies including a battery power source section 9, keyboard assembly 16 and an electronics housing section 8. The keyboard assembly contains a keyboard unit 16A, which may contain a full-size QWERTY keyboard unit. The housing section 8 may include a wireless modem or communications adapter means. The expandable hinge means 10 should have an easy access locking and unlocking means 10A, which can temporarily lock the rotation of the two halves at the user's desired angle. Electronic housing section 8 may be attached edge wise to the keyboard assembly 16 by a quick attach and release connection means. As shown in the figures, several assemblies can be disassembled by pressing one or more finger access tabs S. Likewise, a battery source section 9 may be edgewise connected to the opposite edge of the keyboard, via similar quick attach and release connection means having finger push tabs 5. The tabs may be located on each side of the assemblies for quick and easy, but safe, user disassembly. The connection means may include means for secure physical attachment and connection of electrical wires, located inside the subassemblies. Although the sections may be ridge, the attachment mechanisms may be somewhat flexible, elastic or pliable, so that the combination of assemblies can bend slightly.

Battery power source unit 9 may consist of one or more batteries with voltage regulation, AC/DC operation, power management circuits and charging circuitry. In a preferred embodiment the unit should be capable of accepting electrical charge from an AC line. A important feature embodiment of the invention is means for quickly interchanging an electrical power depleted battery power unit 9 with a freshly charged battery unit. This may be accomplished by a combination of finger push tabs 5, latches and hook means for quick disconnection and re-attachment. In one intended scenario a user may carry several spare battery packages in a separate briefcase. When the attached battery package is depleted, the user can quickly changed out the battery sections. The user can then plug the depleted battery package into an AC line for a built-in charging operation.

It is preferable that each of the major assemblies and sub-assemblies be made relatively thin for easy carrying. The expandable hinge means should be made somewhat flexible, elastic or pliable so that the user may place relatively thin flat objects inside the folded space of the notebook-like unit. These thin objects may include sheets of paper, cards, brochures, or similar relatively thin flat items. Linkages between the sections may be made somewhat yielding, pliable, elastic and/or stretchable. Although the display device may be ridged, the other half of the notebook may be embodied with thin flexible enclosures and other structural components. Also, the flat panel display device and assembly 2, 4 may be made flexible. Thin and flexible keyboards are known to those in the art. The other parts may be adapted to have thin and slightly flexible mechanical features. The two halves can be closed by hand and secured by a flap and snap means 43 or equivalent means. As discussed above, the expandable hinge means 10 may be made flexible and expandable by incorporating a multiplicity of small folds or other equivalent means. If the user places thin objects between the halves of the base unit, one or more sides could bulge out slightly, improving the physical object carrying capability of the notebook computer. This object carrying capability is an important feature for mobile users who may be carrying the notebook almost everywhere

8

they go. The user may securely place and latch paper sheets, letters, memos, or other flat objects inside the notebook clam shell structure. A base unit hinge locking and unlocking means 10A may also be embodied, so that the user can quickly and easily temporarily lock the two halves of the unit to a rotationally fixed state (and later un-lock them).

FIG. 3(a) also shows several other elements including a small CCD video camera 46, built into the display assembly for video conferencing and other uses. One or more built-in audio microphones 36 may be embodied in the base unit. Preferably one microphone should be located on the edge of the notebook, as shown, so that the user may be in voice communications with other while the unit is closed. One or more audio speakers 30 may be built into the base unit. One or more compartments 47 and 48 may be embodied at convenient locations to store attachments for use with the mobile computer system. A telescoping antenna 32 may be embodied into the base unit as shown, or it may be built-in the unit and not exposed. Although the base unit 100 can be a self-contained unit, it may work with other optional attachments, such as a wireless cellular-like handset 14 or earset 34, as shown in FIG. 3(c). The handset 14 may operate roughly equivalent to conventional cellular telephone handsets with a built in power source, providing voice and/or data communications to wide area communications networks. The earset 34 has a small low power RF transceiver, audio microphone, audio speaker and small battery source, which is capable of fitting into the user's ear. The wireless earset unit may be used for hands free applications. The user may then walk around while communicating with the handset or earset. If one is using the earset he/she may also use a pen input means 7 or keyboard 16 while in audio communications. For semi-private voice communications, some users may prefer using the handset 14, with handset speaker 14A, handset key pad 14B and handset microphone pickup 14C.

If one is using the handset or earset, the base computer unit 100 may be placed some distance away from the user, typically in the same room or nearby room. The base computer unit may be designed for a higher transmitting power level. The base unit may be designed to allow the user to switch between a high or low level transmitting and receiving power levels. The earset 34 or handset 14 can be designed for a much lower RF transmit and receiver electrical power levels, because the base computer unit 100 can be place a relatively short distance away (typically from a few feet to about fifty feet). Thus, the base unit 100 may relay RF communications between the handset or earset and an external wide area communications network. The base unit could safely embody a more powerful RF transmitter resulting in a larger signal to noise ratio. This will result in improved wireless communication to and from wide area networks that may have antennas several miles away. A very important advantage of this invention is that the user has the option of having very low electrical power electromagnetic fields near his/her's head, thus improving the health and safety aspects for the user. Since less power is required for the handset 14, it can be thinner and smaller than a standard cellular handset. Thus the handset can be smaller and easier to place in the user's pocket. The earset can be made vary small so that the users can leave it in his/her's ear for long periods of time and have one's hands free for other uses.

FIG. 3(b) shows the base unit computer-display unit 100 in a closed configuration, in which one may carry it under one's arm. Since the unit is typically battery powered and contains electronics for a wireless voice and PCS like operations, one could use it for voice/data communications while carrying it about (i.e., in transport). The user may

US 7,103,380 B1

9

speak towards one or more microphones 36 located along the top edge. The user will be able to hear the other person(s) talking, through audio speakers 30 located conveniently on the base unit. A small telephone keypad could be located behind a protective door 41, for convenient dialing of a telephone number. The door may be a simple sliding door device or mechanism. The antenna 32 may be a sliding telescoping type. A simple display indicator 22 may show the electrical charge state of the battery source. A plurality of switches and indicators 46 may be located along one edge of the base unit for easy viewing and access. Such switches and indicators may include: an On-Off switch, Mode Switch (for voice, data, and video modes, etc.), high/low power transmit switch, ring/alarm mode and/or speaker/mic mode (for earset, handset, etc.). For securing the two halves of the base unit, a flap 43 made of a simple expanding material, which may include a snap means at one end and may be secured with a pin and/or pivot means. The flap would then snap to secure the flat panel display assembly 2 and cover assembly (9, 16, 8). In FIG. 3(a), the flap 43 is shown rotated in the opposite orientation for clarity only. Other securing means may be embodied that are known to those in the art.

FIG. 4(a) shows the portable computer system or computer-display unit 100 covered with a thin soft protective material or film, such as leather or vinyl. This material will protect the unit when it is bumped and/or banged into hard objects while in the use in field or office environments. The protective material may have a texture or roughen surface (as indicated in the figure), which would also provide for a relatively high mechanical friction; so it will be easier to carry under one's arm. Holes or cutouts may be embodied in the protective cover for viewing and/or using the various indicators, switches and keypads. A zipper securing means 45 may be embodied with the notebook, as shown in FIG. 4(a). The zipper means may be attached to the leather or vinyl covers so that the unit can be zipped closed to secure and protect objects placed inside the notebook. A pull tab 45A of the zipper means is shown in the figure. This embodiment would be especially applicable in rugged or harsh environments. A strap 50 may be attached to the unit so that the user may temporarily store it on a hook for example. FIG. 4(b) shows an embodiment of the battery power source section 9. As in previous embodiments, it may be detached from the notebook computer-display unit. A spring loaded pull out power cord 9B may be embodied, so that the user can conveniently pull out the power cord to electrically charge the package. The power cord and plug may be easily retracted inside a cutout space on the side of the subassembly. Several adjunct attachments and/or accessories may be carried in small compartments in the notebook unit. In addition, accessories and attachments may be carried in a separate briefcase or like carrying case (not shown in the figures). Such accessories may include line power, supply and cord, extra battery power source section 9, spare earsets 34, spare handsets 14, external hard drive, external CD ROM drive, external mouse, spare styluses and/or spare video camera/lenses 46.

An important advantage of this notebook computer unit invention is that it can be operational when it is in the closed configuration. Thus, while carrying the unit in one's hand or under one's arm, the user can perform voice, data and/or video communications. The notebook unit can be used in an open configuration on a desktop, airline tray or wide variety of other computing environments. The unit can be configured for wire based or wireless communication operations. The unit can be used for general purpose computing, network computing, pen input computing, PCS/Cellular, data/video conferencing, on-line network computing and data collaboration applications. The notebook unit can be used as

10

a personal organizer or personal information manager, such as a computer equivalent of the Franklin Planner™ or equivalent planners. A multiplicity of personal computing applications may be embodied on its computer. The unit may be capable of wire or wireless communications, linking it to multiple handsets and earsets. The notebook computer unit may have a plurality of electrical connectors along the edges or other convenient locations for connection to a plurality of external devices, including but not limited to: modems, network interface cards, hard disks, floppy disks, and bus extender enclosures.

Preferably the notebook assemblies should be made relatively thin and light weight that would be an advantage in mobile use. For example, the flat panel display assembly 2 should have a thickness of roughly 0.75 inch or less. The cover assembly may be comprised of the battery power source section 9, keyboard assembly 16, and external communications section 8 should have a thickness roughly 0.75 inch or less, so that the folded total thickness of the unit could be 1.5 inches or less. However, an overall thickness of one inch (i.e. 0.5 inch for each half), or less, may be preferred. A keyboard unit located in keyboard section 16 that may be Model KFNK available from Alps Electric Co. Ltd. This keyboard unit has a thickness of 10 mm, a 3 mm key travel, a 1 mm over travel and a minimum key pitch of 18 mm. Alps Electric also has introduced a 7.5 mm height keyboard assembly a full size keyboard, capable of high speed typing without operator tiring.

FIG. 5 shows another alternate computer notebook embodiment, consisting of a somewhat smaller size flat panel assembly 2, display screen 4, pen/stylus means 7 and a roughly transparent display panel cover 17. The flat display panel could be an LCD, FED, or other type of flat panel display. The panel cover 17 could be made of a hard rigid material or a durable soft polymer material that is roughly transparent to a range of electromagnetic radiation frequencies. This cover may be made optically transparent to let the ambient room light to impinge onto a plurality of photoelectric light sensors 41A, 41B and 41C, which may be placed onto the display panel assembly 2. The photovoltaic or photoelectric light sensors may convert ambient room light to electrical voltages. These sensors may provide power energy to power the unit. The sensors may also help change the unit's battery source. Thus, with the roughly transparent cover 4 closed over the display panel assembly, some light rays will be transmitted through the cover. Photons from the ambient light are converted to an electric voltage, via the sensors and energy conversion circuitry that is applied to the computer unit's power source. Even if the computer unit is turned off and cover closed, the sensor could still be charging its batteries. The roughly transparent cover 17 may be made flexible layers of polyester, polycarbonate or other suitable materials. An advantage of this embodiment is an improvement in maintaining power to the notebook unit for longer periods compared to prior art battery powered units. Information on the display screen may be viewable even with the cover 17 is closed over the flat panel display assembly 2. Viewing of the display screen with the cover closed is an improvement over the opaque covers of conventional notebook computer and PDAs.

FIG. 6(a) shows another embodiment of a thin light weight notebook computer or PDA unit. The cover panel 17 contain a keyboard 16A, which may be a membrane type keyboard. The flat panel display assembly 2, with its display screen 4, is attached to the cover panel 17 by an expandable hinge means 10. The hinge means, which may be elastic or pliable, should be capable of being rotated over angles Λ . The hinge means should be capable of rotating through roughly 360 degrees, so that the two halves may be folded back onto each other as shown in FIG. 6B. In the configu-

A00240

US 7,103,380 B1

11

ration of FIG. 6B, the notebook unit can be held in one's arm, and the display screen can be written onto by a stylus or pen. The unit could also be placed onto the table or desk for convenient viewing. The cover keyboard assembly 17 can be closed to a hold loose sheets of paper, brochures, etc. It this latter case, the size of the panel halves should be slightly larger than 8.5" by 11" to facilitate one carrying loose sheets. Expandable hinge means 10 is designed to expand to accommodate a relatively thick stack of documents. Hinges may be made of pressed pliable corrugated plastic sheets can accommodate 0.5 inch or more gaps.

Various battery power sources 9 may be used in the above embodiments, including smart-battery technology having rechargeable batteries. They may be made capable of monitoring themselves for electrical charge level. Batteries that are suitable for this smart battery technology include nickel-metal hydride (NiMH) and lithium-ion (Li-ion) types. NiMH batteries are more sensitive to overcharge than NiCd batteries. Care must be taken to avoid overcharging that causes heating, which is damaging to the NiMH cycle life and capacity. Li-ion batteries require tight battery management for safety purposes. NiMH batteries are available from Sanyo Energy USA. Several power management and smart-battery devices are available. Duracell has a smart rechargeable battery with intelligent power management circuits for charge level gauge means, as disclosed above. The gauge may constantly show the state of the total battery charge. Advantages of an intelligent battery management system include customer notification of charge state, longer mobile operation times, longer battery lifetimes and faster charge times. The rechargeable battery and power management circuit may collect and communicate the present and predicted battery data to the host notebook computer under software control.

Wireless communications adapters or modems disclosed in the above embodiments may consist of analog or digital transmitter and receivers, having control circuitry for cellular AMPS, PCS, CDPD, and RF links to wide area communication networks. The communication means disclosed herein may make use of long distance or short distance communications techniques, methods and equipment. Communication techniques may include several types of digital multiplexing and command access schemes such as TDMA, CDMA, GSM, or a combination thereof.

FIG. 7 shows a block diagram of the system elements and associated circuitry, hardware, firmware and software. A microprocessor 38 controls most of the system elements. A computer system I/O bus 60 is shown interfacing several system elements. Many types of microprocessors may be embodied, including 16, 32 or 64 bit processors. The microprocessor may a complex instruction set computer (CISC) or a reduced instruction computer (RISC) computer types, or a combination of the two. CISC microprocessors that may be embodied, including the Pentium P5 manufactured by the Intel Corporation, the 68000 series microprocessors made by Motorola Corporation. Many types of RISC processors may be embodied, including the ARM series, the UltraSpac by Sun Micro Systems, the SH Series by Hitachi, PowerPC by Motorola and IBM and the MIPS R4000 series by several sources. The above manufactures' references and manuals are hereby incorporated by reference. Since electrical power dissipation is very important in portable systems, RISC microprocessor may have an advantage with smaller transistor counts, low voltages and fully static designs. RISC processors are available at an operating voltage of only 2.0 volts. RISC processors using 0.5 micron CMOS processes have resulted in die sizes for core functions of roughly 4 mm². RISC processors can deliver 300–400 Mips/W. Microprocessor 38 may support several types of I/O buses (typically 32 bit wide), such as VL or PCI type buses.

12

Microprocessor and I/O busses are well known to those skilled in the art.

A Microsoft Corporation's Windows® operating system software may be embodied in the computer system. For these system::, the microprocessor CPU should be at 32 or 64 bit processors, capable of clock speeds in the 100MHz or more. The microcomputer system may also consist of one or more I/O port means 62. A PC Card interface 27 may be embodied for bus expansion, extended memory or other added circuitry having access to the main bus 60. A mass memory device 42 may be embodied in the system, which typically is a magnetic disk memory hard drive. Many devices may be connected to the computer system, including a smart card interface 46 and keyboard 16. A touch panel and pen input means 7 may be embodied in the system; which may be separate or integrated. Examples of such touch pen devices are available from Elo Touch Systems Inc. in Oak Ridge, Tenn., MicroTouch Systems Inc. in Methuen, Mass., and Carroll Touch Corp. in Round Rock, Tex. Pen and touch panel combinations means are available from Scriptel Corp. in Columbus, Ohio for the tablet, and Symbios Logic in Colorado Springs for an IC controller. Other pen and touch devices are available from Phillips Semiconductor, Sunnyvale Calif. Other more traditional cursor control devices 56 may be embodied, such as a mouse, trackball, touch pad, or force transducer. Preferably, most of these components should be sufficiently small as to fit into relatively thin display assembly 2.

The flat display panel device 2 is be interfaced to the system bus 60 through display controller circuitry 44. Preferably, the display controller should be capable of VGA or SVGA display formats. Integrated into the display controller may be a BitBlt engine (to accelerate graphics), RAMDAC memory, clock synthesizer and display frame buffer. A digital signal processing (DSP) co-processor 48 may be embodied. The DSP may accept data from many sources including a microphone 36 and video data source 43. The DSP or microprocessor may output signals to one or more audio speakers, as shown as 10A and 10B. Video data may be in either analog or digital form. Microphone 36, and speaker(s) may be embodied in the handset or earset of the previous figures. Video data may be pre-processed by a the DSP. Video sources may include output from video cameras. VCR, broadcast TV, satellite TV or cable TV.

External communication means 54 may be connected to the bus, which may be capable of fast two way data transfers. The communications means 54 should be capable of controlling communications to and from a plurality of wire and wireless communication systems. These include wire based telephone means 53 and wireless communication means 51. The system may include an antenna means 32 for transmitting and receiving electromagnetic radiated signals. External communication means may be connected to one or more information or communication service providers. These service providers may include telephone services (RBOCs, LEC), on-line computer networks, Internet service providers, cable MSOs and/or long distance telephone firms. They also may include cable TV companies, satellite TV service, and LAN/WAN communication network providers. The external I/O port means 62 may be connected to a Universal Series Bus (USB) and/or an IEEE 1394 (Firewire®) type I/O bus.

FIG. 8 presents a typical flow diagram of computer programs executing in the system of the embodiments disclosed herein. After a power-on action 60, the system may enter a standby power on mode 62. A power management program 66 may then be execute followed by a self diagnostic routine 68 that tests the major hardware and firmware elements of the system. If the test fails, a failure report 66 may be generated and either displayed or stored. If the test

US 7,103,380 B1

13

passes, the operating system (OS) 70 may be loaded and executed. With the OS loaded successfully, the system waits for incoming data and/or voice calls 72. The system may automatically enter a default system mode, or the user can select one or more computer or communication modes 76. The user has the option of selecting several operating modes, which may include a conventional computing mode 78, a wireless data communications mode 80, and a wireless voice communications mode 82. A conventional computing mode includes typical PC computing or PDA computing. While in any of the above modes, base unit to external communications operations 79 may be controlled, which includes data/voice wire and wireless options. Control code 81 may control the bidirectional handset or earset to base unit communications operations. These operations may execute roughly simultaneously or on a time shared bases, as indicated by connection 83. Under program control, either the wireless handset or the earset may communicate data first between the base unit, then the base unit may relay the data to/from the external communications network. The above communications may involve two way or bidirectional communications, including many types of data (including text, voice, graphics, video and/or images).

Many types of computer application programs may be executed by the computer system. For example, one or more telephony programs 84, office/personal productivity programs 86, electronic mail or voice mail 88, and Internet/Web browsing programs 90 may be used. Other PDA, PC or workstation programs may also be executed. One or more programs (algorithms or routines) 96 may be used to control this multiple program or system modes; this may include program coordination, scheduling and execution. Programs to control the mobile communications relay functions 98 may be embodied. Users may have the option to exit the application programs 100. Typically, after the applications have been closed, the user may exit the operating system 102. After the system exits the OS, the system may still may be in a standby power mode 104, in which the system can answer and process incoming calls, plus service other requests for other processing tasks. Users may have the option of turning off (or removing) all power to the unit 106.

It should be further understood that, although a preferred embodiment of the invention has been illustrated and described herein. Changes and modifications can be made in the described arrangements without departing from the scope of the appended claims. Other embodiments, additions, and improvements will be obvious to those with an ordinary skill in the relevant art.

I claim:

1. A method for handset unit communication comprising the following steps in any order:

- a) transmitting first data via wireless communication to a local area communication base unit a relatively short distance away;
- b) receiving second data via wireless communication from the local area communication base unit a relatively short distance away;
- c) using said handset unit to communicate, selectively, the first and second data to and from the local area communication base unit and to communicate third and fourth data to and from an external wide area network, wherein the communication of the first, second, third and fourth data are not necessarily performed simultaneously, and wherein the transmit power level of the handset unit when transmitting to the local area communication base unit is lower than when transmitting to the external wide area network; and
- d) wherein the first and second data include data formatted for computer e-mail.

14

2. The method for handset unit communication as recited in claim 1, wherein said handset unit is configured to a personal digital assistant (PDA) having PDA functions in addition to handset unit communication functions.

3. The method for handset unit communication as recited in claim 1, wherein said handset unit is a cellular telephone unit.

4. The method for handset unit communication recited in claim 1, wherein the handset communicates with multiple handset units or earset units.

5. The method for handset unit communication as recited in claim 1, wherein said handset unit is adapted to access the Internet.

6. The method for handset unit communication as recited in claim 1, wherein said handset unit is configured to function as a hands free speakerphone, wherein a user has an option to speak toward a microphone located on the handset unit, wherein the distance from the user's mouth is substantially larger than a conventional telephone handset.

7. A method for handset unit communication comprising the following steps in any order:

- a) directly communicating bi-directional wireless voice and computer data including wireless data networking communicating data selectively to and from a local area base unit and an external wide area network;
- b) transmitting a first wireless radio frequency (RF) signal comprising said data selectively to said local area base unit and to the external wide area network, wherein the data is not necessarily transmitted simultaneously to the local area base unit and to the external wide area network and wherein the first wireless RF signal transmit power level transmitted to the local area base unit is lower than the power level required to transmit the signal to the external wide area network;
- c) receiving a second wireless RF signal comprising said data from said local area base unit; and
- d) wherein said handset unit data includes data formatted for e-mail.

8. The method for handset unit communication as recited in claim 7, wherein said handset unit is configured to data networking functions communicating with one or more handset units forming a local area network.

9. The method for handset unit communication as recited in claim 7, wherein the handset unit is configured to communicate with said external wide area network, wherein the external wide area network is substantially the Internet.

10. The method for handset unit communication as recited in claim 7, wherein said handset unit communicates with an earset unit.

11. The method for handset unit communication as recited in claim 7, wherein said handset unit is a wireless cellular telephone unit.

12. The method for handset unit communication as recited in claim 7, wherein said handset unit is configured to send and receive e-mail via said external wide area network.

13. The method for handset unit communication as recited in claim 7, wherein said handset unit is configured to communicate voice and audio information.

14. The method for handset unit communication as recited in claim 1, wherein the wireless voice and computer data is relayed to the external wide area network by the local area base unit.

* * * * *

A00242



US007103380C1

(12) **EX PARTE REEXAMINATION CERTIFICATE** (9352nd)
United States Patent
Ditzik

(10) **Number:** **US 7,103,380 C1**(45) **Certificate Issued:** **Oct. 8, 2012**(54) **WIRELESS HANDSET COMMUNICATION SYSTEM**(76) Inventor: **Richard J. Ditzik**, Bonita, CA (US)**Reexamination Request:**

No. 90/011,882, Aug. 29, 2011

Reexamination Certificate for:

Patent No.: **7,103,380**
 Issued: **Sep. 5, 2006**
 Appl. No.: **09/391,966**
 Filed: **Sep. 8, 1999**

Related U.S. Application Data

(62) Division of application No. 08/832,923, filed on Apr. 4, 1997, now Pat. No. 5,983,073.

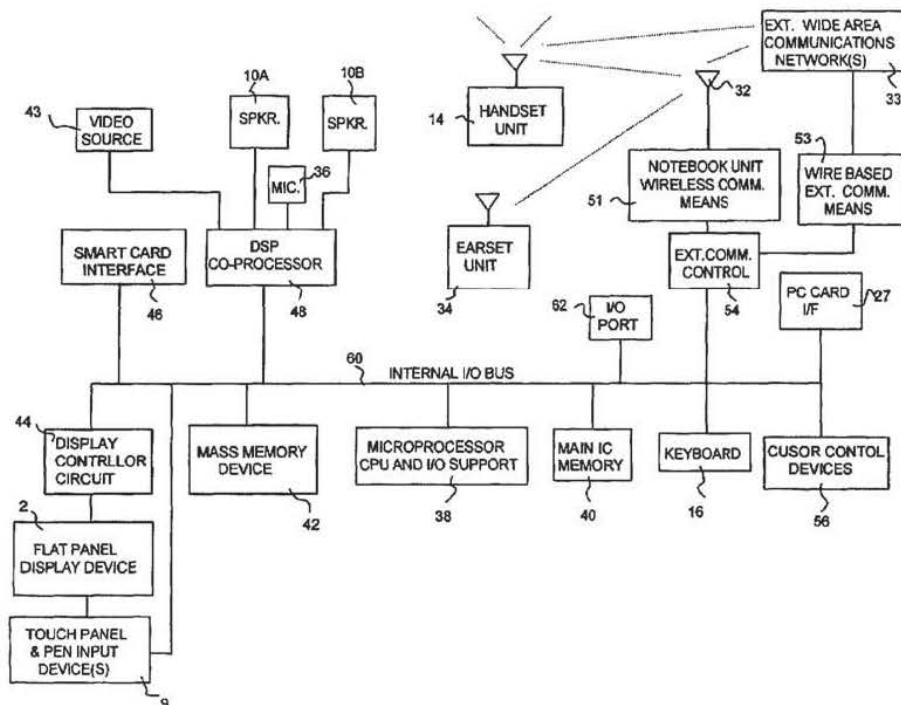
(51) **Int. Cl.**
H04B 7/15 (2006.01)(52) **U.S. Cl.** **455/556.2; 455/11.1; 455/557**(58) **Field of Classification Search** None
 See application file for complete search history.(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/011,882, please refer to the USPTO's public Patent

Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Andrew Nalven(57) **ABSTRACT**

A small light weight modular microcomputer based computer and communications systems, designed for both portability and desktop uses. The systems make use of a relative large flat panel display device assembly (2), an expandable hinge device (10), battery power source (9), keyboard assembly (16), and wireless communications devices (32, 51). The systems are capable of bi-directional realtime communications of voice, audio, text, graphics and video data. Both wire-based or wireless communications methods and devices are implemented. Wireless communications devices may include one or more telephone-like handsets (14) and/or earset (34). The wireless communication devices may include one or more antennae (32). Systems can be configured in a portable arrangement similar to conventional notebook computers, but can be quickly and easily disassembled and re-assembled for office desktop uses. Systems may consist of a base computer unit (100) comprising wireless communication devices may act as a relay station relaying voice and other data between the handset or earset and external wide area communications networks. The system may be capable of performing, personal digital assistant (PDA), cellular telephone, conventional notebook computer, desktop computer functions.



A00243

US 7,103,380 C1

1

**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claim 2 is confirmed.

Claim 1 is cancelled.

Claims 3-7 are determined to be patentable as amended.

Claims 8-13, dependent on an amended claim, are determined to be patentable.

Claim 14 was not reexamined.

3. The method for handset unit communication as recited in claim [1] 2, wherein said handset unit [is] *further comprises* a cellular telephone unit.

4. The method for handset unit communication recited in claim [1] 2, wherein the handset communicates with multiple handset units or earset units.

5. The method for handset unit communication as recited in claim [1] 2, wherein said handset unit is adapted to access the Internet.

2

6. The method for handset unit communication as recited in claim [1] 2, wherein said handset unit is configured to function as a hands free speakerphone, wherein a user has an option to speak toward a microphone located on the handset unit, wherein the distance from the user's mouth is substantially larger than a conventional telephone handset.

7. A method for handset unit communication comprising the following steps in any order:

a) directly communicating bi-directional wireless voice and computer data including wireless data networking communicating data selectively to and from a local area base unit and an external wide area network;

b) transmitting a first wireless radio frequency (RF) signal comprising said data selectively to said local area base unit and to the external wide area network, wherein the data is not necessarily transmitted simultaneously to the local area base unit and to the external wide area network and wherein the first wireless RF signal transmit power level transmitted to the local area base unit is lower than the power level required to transmit the signal to the external wide area network;

c) receiving a second wireless RF signal comprising said data from said local area base unit; [and]

d) wherein said handset unit data includes data formatted for e-mail[] ; and

e) *wherein said handset unit is configured to a personal digital assistant (PDA) having PDA functions in addition to handset unit communication functions.*

* * * * *

A00244